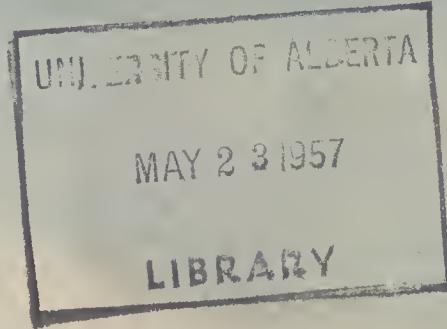


Applied Science

APPLIED SCIENCE READING ROOM

THE *Country* GUIDE



MAY 1957

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Don't Let . . . YOUR WEED PROBLEMS GET YOU DOWN



In the WEEDONE group of Herbicides there is a weed killer of a particular type that will assist you control your most difficult and diversified weed problems.

Technical Information

United Grain Growers Limited offer you a complete service in pamphlet and technical information sheets. Whatever your particular weed problem may be, there is an answer available to you. See your friendly U.G.G. Elevator Agent or Accredited Dealer, or write your nearest U.G.G. office. This service is free for the asking.

Weedone Herbicides . . .

are the original weed killers, produced by American Chemical Paint Co. All other 2,4-D's are formulated under license from this Company. There is a difference—make sure that you select the best, the original, because they cost you no more and in fact cost you less when efficiency, and results you can expect, is considered.

INSIST ON THE BEST – IT WILL COST YOU LESS!

HERE IS THE COMPLETE WEEDONE LINE FOR EVERY WEED NEED

WEEDONE 64-oz. Ethyl Ester 2,4-D. This is the well known and acceptable original weed killer. Contains 4 lbs. 2,4-D acid equivalent per gallon. Emulsifies in hard or soft water. It clings and penetrates the weed foliage down to the roots—highly selective.

WEEDONE 80-oz. Amine 2,4-D. This is the amine salt formulation and contains 5 lbs. 2,4-D acid equivalent per gallon. Easily emulsifies and ideal for control of annual weeds and less severe on cereal crops.

WEEDUST 5%. This is an ester dust, formulated for application where water supply is not readily available. Contains 5% ester acid equivalent. Care must be taken to avoid wind drift.

WEEDONE WEED KILLERS

are particularly formulated to meet Western Canadian conditions, and this applies to all component constituents, especially in emulsifiers and penetrating oils.

There is maintained at Saskatoon, Saskatchewan, a complete experimental and development plot station, and in addition the American Chemical Paint Co. maintain even more extensive farm plot work in Pennsylvania, and during the North American winters plot work is carried on in New Zealand.

WEEDAR MCP AMINE. This is a highly selective herbicide, coming into favor on account of its safe treatment of growing crops, particularly oats and flax. The amine formulation is recommended for the best results.

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ACP GRASS KILLER (TCA 90). Contains 90% Sodium Trichloracetate. Controls grasses in crops such as beets, alfalfa and flax, also perennial grasses in non-cropped land.

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A 3-D AMINO-TRIAZOLE WEED KILLER. NON-STERILANT

Positively controls Quack Grass, Canada Thistle, Toad Flax, Hoary Cress, Leafy Spurge and many other hard-to-kill perennials.

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You can depend on WEEDONE Weed Killers—10 years of distributing service in Western Canada is proof of Economy, Service and Safety when Weedone products are used as recommended. This is also the experience of agriculture in some 50 different countries, on this hemisphere and abroad. When you use any member of the WEEDONE family of Weed Killers, to take care of your weed problems, you will find know-how of production packaged in every container.

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Now in Its Second 50 Years of Service to Western Farmers

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SASKATOON

EDMONTON

CALGARY



[Eva Luoma photo]

THE *Country* GUIDE

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MAY, 1957

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COVER: This Richard Harrington picture, taken at Ft. Vermilion, in northern Alberta, and in recent years has been a common sight along the northern fringe of settlement in the Prairie Provinces, as well as in other parts of Canada.

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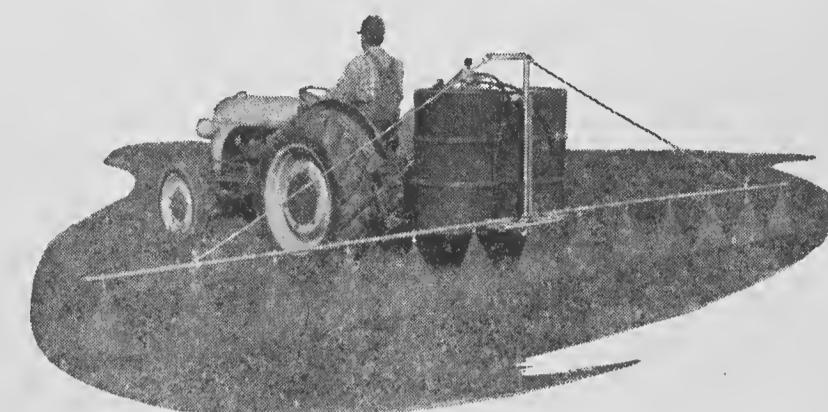
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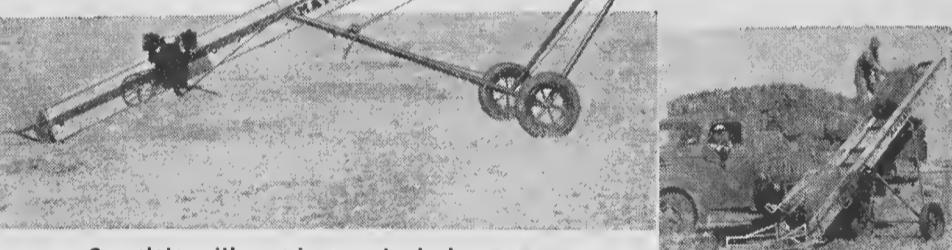
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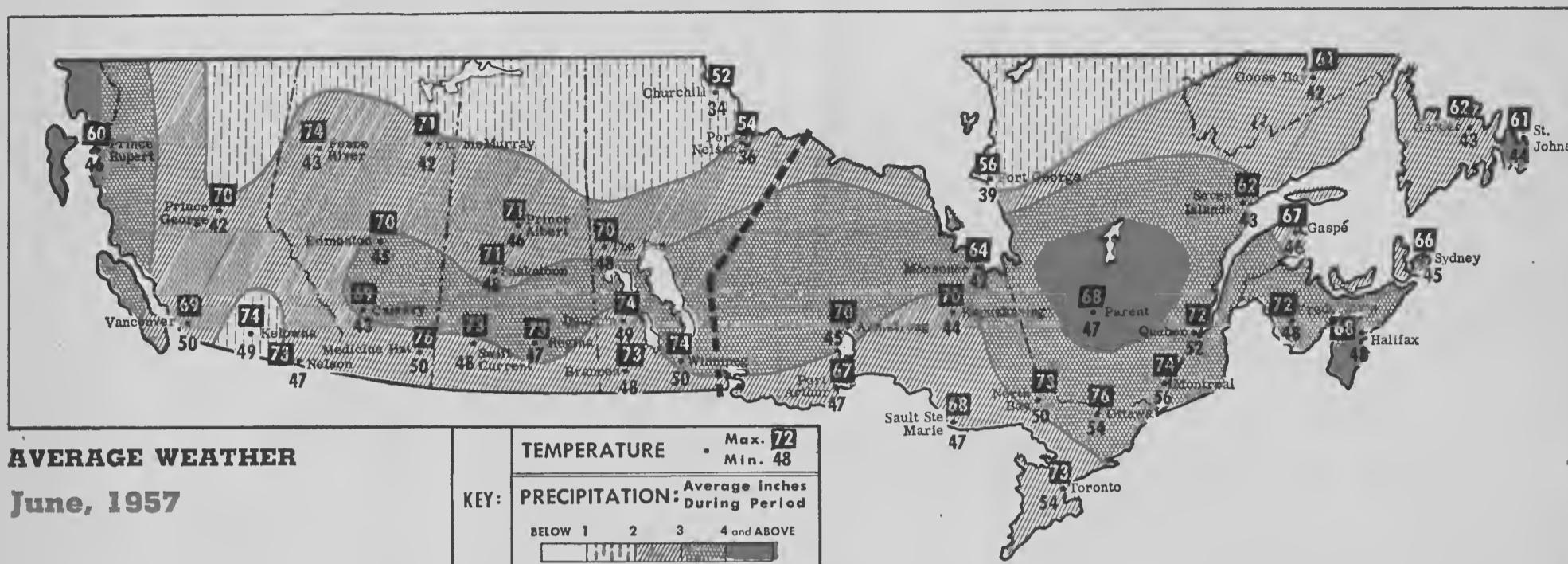
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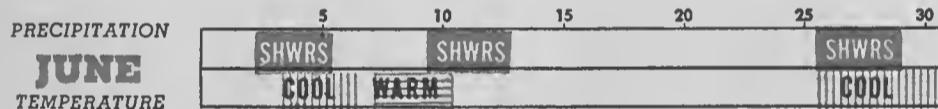
(Allow a day or two either way in using this forecast.
It should be 75 per cent right for your area, but
not necessarily for your farm.—ed.)



Alberta

Quite dry weather will be recorded over the province. Only the mountainous areas of Central Alberta will receive more than normal precipitation. Most of the precipitation occurring will be contained in the three storm periods noted. The interval between the 13th and the 25th will be very favorable for outside work, with little precipitation and generally normal temperatures. Alberta will be quite cool for this time of year. Only

one warm interval of significance appears, and it will be more than offset by the cooler periods. Temperatures during the first cooler interval will dip precariously close to freezing, but the cooler interval toward the end of the month will not be nearly as extreme. June, 1957, will contrast considerably with the same month last year when warm and wet conditions were experienced over the entire province. V



Ontario

Moderately heavy storminess will produce amounts of precipitation considerably in excess of normal in some spots. The southern part of the province around the Lake region will accumulate the most moisture. The storminess occurring just prior to the 20th will be mainly in the western portion of the province, with amounts dwindling with distance east. Temperatures in excess of three degrees above normal are expected, with

warmest conditions in the southeastern portions. Temperatures will hover close to the 90-degree mark during the last two warm intervals noted on the timing bar below. There is nothing to fear from the cooler periods noted, as temperatures are not expected to go much below 40 degrees during the entire month. With adequate soil moisture expected, crops should proceed along nicely in this forecast period. V



Saskatchewan

The month will be favorable for outside work, but not too good for crop growth. Amounts of precipitation will fall short of normal, with driest conditions in the northern half. Here again, most favorable weather for outside work will be between the 13th and the 25th. Cooler weather, on the other hand, will help, since all ground moisture will not be evaporated. Temperatures will average from near normal to a degree or two below normal

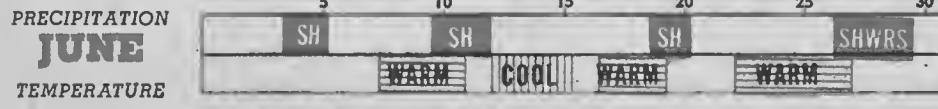
for the month. The first cold period of the month is the one to be watched, with temperatures very near freezing in prospect over most of the region. A contrast between this year and last year is again evident since June, 1956, was wet and warm. Precipitation during the first two weeks of June will encourage germination and growth of crops, but during the middle two weeks no important moisture-bearing storms are anticipated. V



Manitoba

The warming trend beginning in May will continue throughout the month of June. Three significantly warm periods will occur, with temperatures likely to soar toward the 90-degree mark during the latter half of the month. The one stretch of cool weather occurring will feel quite comfortable, although it should be watched for near freezing temperatures. Amounts of precipitation will be near, to above, normal, with heaviest

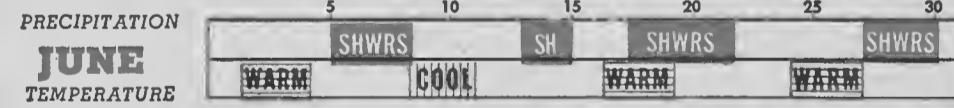
amounts falling in the southern part of the province. Four intervals of storminess are expected. Interruptions to outside work will be quite brief and storminess will be well spaced to keep the ground in good condition for the growing crops. In general, fairly good progress can be expected with most farm activities this June. Seeding of fall grain should be able to get off to a good start during the period of this forecast. V



Quebec

June, 1956, was quite cool and dry over a large part of the province. Conditions this year will be almost exactly reversed, with most of the province receiving amounts of precipitation above the usual, and temperatures will range up to three degrees above normal levels for June. Conditions should be ideal for crop growth, because in most cases, wet weather will be followed by warm weather. One cool interval is ex-

pected, but temperatures occurring during this time will not be of particular concern. The latter half of the month will be particularly warm, with some readings into the 90's. The only disagreeable aspect to agriculture this June will be the difficulty encountered in accomplishing the planting operations due to the wet. Wettest conditions will likely occur during the middle two weeks of June in the Quebec region. V



Maritime Provinces

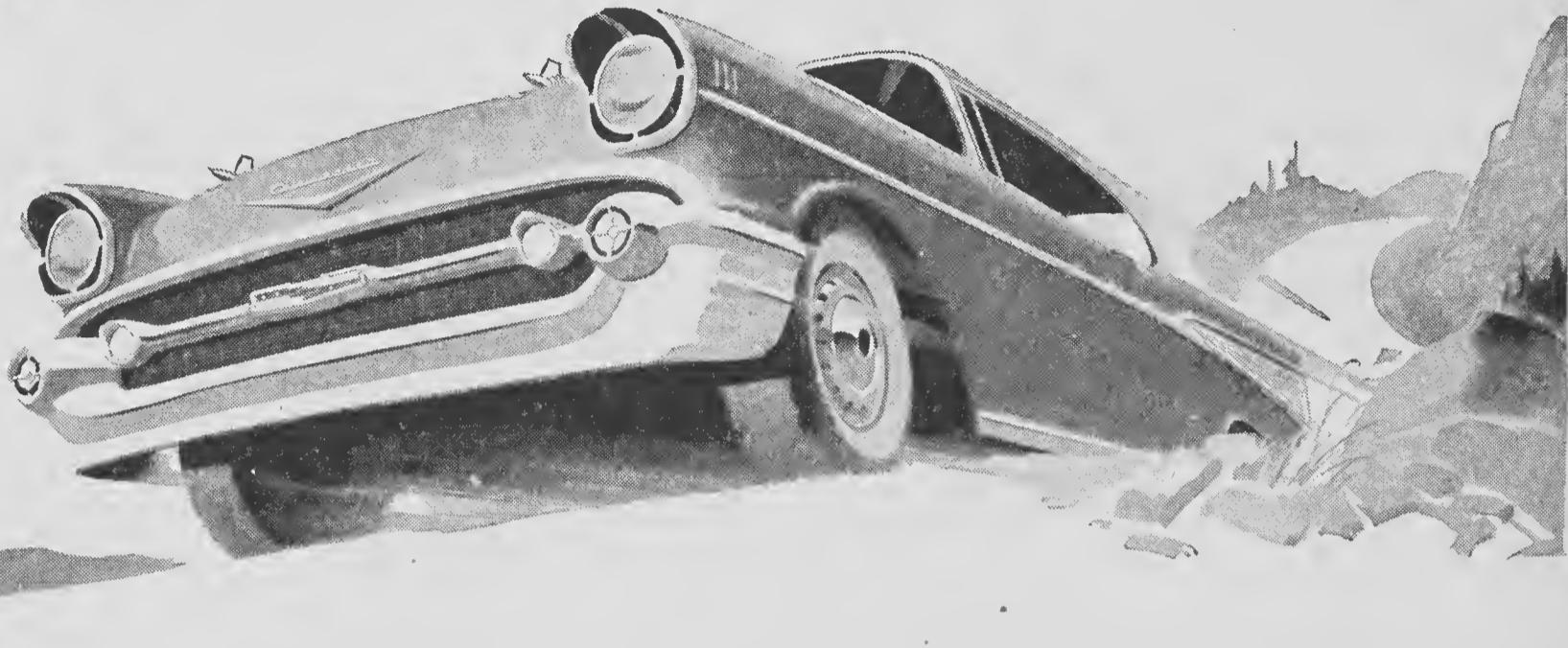
Storminess during June, 1957, will be frequent and contain considerable moisture. Total amounts of precipitation in the Atlantic Provinces will exceed normal in most places. Moisture will likely be welcome, although interruptions will be frequent. Due to the general storminess and wetness, field work will be hampered. The latter part of the month probably will be the best for outdoor activities when daytime readings will generally be in

the seventies with precipitation nearly as numerous as during the first half of June. The middle part of the month will be quite cool; however, the warm weather at the beginning and during the last ten days of the month will more than offset these cool temperatures. As a result, temperatures will average up to three degrees above normal. This warm, wet weather will do much to help make the crop for this year. V



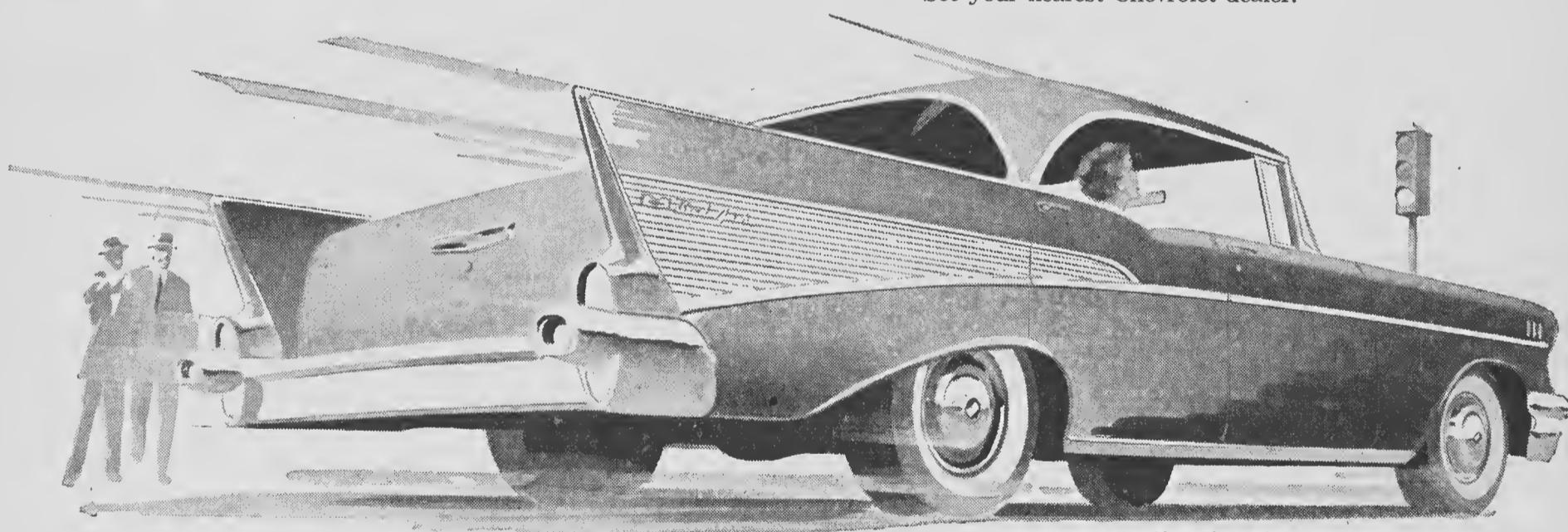
More muscle...

Bring on the hills! An easy, easy pressure of the toe, and up you go . . . the grade just doesn't exist that can make a '57 Chevrolet falter. Come on in and sample the lift, the incredible liveliness, the big reserve of safety power that Chevy's super-efficient V8's and 6 deliver! It's a wonderful feeling! But, then, nobody in the low-priced field builds such tireless and resourceful engines.



more hustle...

Try this. When that light flashes green, open that Chevy up a little. There's astonishing zip to the get-away of this most spirited of all Chevrolets! See how many higher-powered cars get that familiar view of Chevrolet gliding sassily away from them! You'll love it — the quiet, velvety eagerness of the '57 Chevrolet. Vim, vigour . . . famous easy handling . . . and the lustrous beauty and good taste of a genuine Body by Fisher masterpiece! That's Chevrolet for '57, the big best-seller! See your nearest Chevrolet dealer.

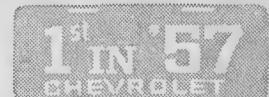


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A GENERAL MOTORS VALUE

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Month after month since the '57 Chevrolet was introduced, Canadians have bought more Chevrolets than any other car.

Do you need a NEW TRACTOR?



... then talk to 'MY BANK'

If you need a new tractor on your farm, but haven't the ready cash to buy one... FIL may be the answer to your need.

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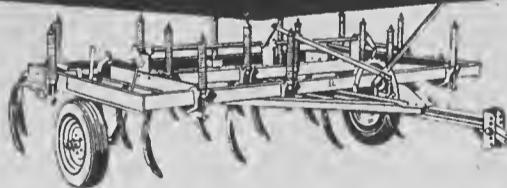
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Count the number of shanks on this 13-foot GLENCOE Sub-tiller plow



Yes, there are 15, the GLENCOE exclusive 10" spacing gives you more sweeps... and when it comes to cultivating with a sub-tiller plow, these extra sweeps result in a more complete weed kill than you could possibly get with any 12 inch spaced plow. When deep tilling, the 10" Glencoe spacing results in more complete breakage of hardpan and lighter draft.

Other exclusive Glencoe features are: trip action mechanical lift which enables the plow to be raised or lowered from the tractor seat, (Hydraulic lift and 3 point hitch models are also available); special spring and shank arrangement which gives fast, trouble-free clearance of obstacles; 6 foot deep welded frame for maximum trash clearance.

Write for free folder and name of nearest dealer.

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FARM NOTES

Grain Stocks At Record Level

TOTAL stocks of the five major Canadian grains in all North American positions at March 31, 1957, were estimated by D.B.S. to be at a record high of 1,459.9 million bushels, compared with 1,219.8 million in 1956, and the previous record of 1,353.4 million on hand at the corresponding date in 1943. The ten-year (1947-56) average March 31 stocks for the five grains was 839.1 million bushels.

This year's March 31 stocks, in millions of bushels, with last year's totals and the 10-year averages respectively, in brackets, are: wheat, 831.3 (751.5, 453.7); oats, 366.5 (238.2, 220.6); barley, 227.0 (197.3, 142.1); rye, 17.5 (24.7, 15.7); and flaxseed, 17.6 (8.1, 7.0).

The proportions of wheat, oats, barley, rye and flaxseed stocks held on farms as at March 31 were estimated at 55, 86, 74, 65 and 59 per cent, respectively.

Show this July), saw a record \$201 average rung up for sows, with a \$400 top. These swine sale figures would seem to indicate that with plenty of feed on farms, swine are considered valuable chattels by Western farmers just now. They also may reflect keener interest in quality production. V

Call for More Sheep Raising

A "NEW LOOK" at sheep production possibilities was called for by President John Wilson, Jr., and General Manager W. H. J. Tisdale, at the recent annual meeting of the Canadian Co-operative Wool Growers Limited. Noting that Canada's declining shearable sheep population, estimated at less than 875,000 was "nothing short of ridiculous," they asked government authorities and interested organizations to boost sheep population with all the ability at their command.

They pointed out that while the world used a record quantity of wool last year (eight per cent more than in 1955), Canada's 1956 output of this commodity was close to an all-time low. The 6,372,000 pounds estimated to have been shorn during 1956 was less than half Canada's production in the 1930's. In contrast, this country was continuing to use more and more wool as our population and the standard of living rose, making it necessary to be increasingly dependent upon imports to meet the demand.

To increase sheep numbers, they suggested that it might be worthwhile to establish a scheme whereby the best ewe lambs, over and above normal farm and ranch replacements, could be saved from slaughter and made available as starting units for beginners. Under such a scheme it might be possible to increase total breeding stock as much as 400,000 to 500,000 head in the next three or four years.

The wool growers co-op, along with the Canada Department of Agriculture, co-sponsored a sheep and wool conference at the Ontario Agricultural College this spring. More than 100 farmers participated in the proceedings.

New U.S. Potato Tariff Agreement

THE Minister of Finance announced recently the successful completion of negotiations under the General Agreement on Tariffs and Trade with the United States, for an upward revision of the Canadian potato tariff. The new year-round duty is 37½ cents per 100 lbs., on all seed and table stock potatoes imported into Canada, but it is not applicable to new potatoes, which will be allowed in free of duty from January 1 to June 14.

By way of compensation the United States is reducing tariff quotas by a million bushels; 400,000 bushels from the table stock quota and 600,000 bushels from the seed quota. These reductions will mean that the quantity of potatoes permitted entry into the United States each year, at the 37½ cents per 100-lb. rate, will be 600,000 bushels of table stock and 1,900,000 bushels of seed. Entries over these quantities will be dutiable at 75 cents per 100 lbs. The announcement said that during the current crop year it seemed unlikely that Canada would be able to take full advantage of either quota. V

Prices Strong At Spring Swine Sales

SPRING swine sales held at Edmonton, Calgary, Regina and Brandon saw an exceptionally keen demand for breeding stock, the prices paid being well above 1956 levels. At Edmonton, sows averaged \$135, up \$50 over last year, with boars topping 1956 figures by \$60. At Calgary, sows averaged \$151 compared with \$96 last year, boars bringing about \$40 more than last year on the average. At Regina, sows averaged \$145 compared with only \$76 last year. The final sale in the circuit, at Brandon (which is to be the scene of the All-Canada Swine



R. Yorke (shearing), J. Willmott and Prof. Needham at the Guelph meeting.

Generally Speaking . . .

no matter how big or how wealthy an advertiser, he cannot afford to advertise a poor quality product. The advertiser's name or his brand on a product is your assurance that satisfaction is guaranteed.



"We purchased our first McCormick No. 45 in 1951—and a second in 1956. The first one has tied over 100,000 bales... never laid up for repairs... cost of maintenance about \$15." —J. Simpson, Simpson Stock Farms, Brandon, Manitoba.

"Used a baler for the first time in '56—a McCormick No. 45. Baled 5,500 bales without a hitch. All I had to do was drive the tractor! Finished haying before my neighbors started." —A. Michaelis, Parry Sound, Ontario.

"Have had a McCormick No. 45 for 2 years and baled 74,000 bales—up to 2,100 in a single day. I like the No. 45 for its trouble free operation in long or short crops." —Robt Wright, Woodstock, New Brunswick.

"With my McCormick No. 45 I baled 1,500 bales for myself—and 5,000 for my neighbors. It takes the hard work out of haying. I am fully satisfied with my McCormick No. 45 Baler." —Omer Lapointe, R.R. No. 4 Lachute Quebec.

THE EVIDENCE IS EVERYWHERE!



ASK THE MEN THAT OWN McCormick No. 45 Balers! We did, last summer, and from *everywhere* the evidence is the same — the light-running McCormick No. 45 is *first choice* with farmers and

custom operators alike. But get *first-hand* evidence right on your own farm, in your own hay crop. Ask your IH dealer for a demonstration, THEN

YOU BE THE JUDGE



MCCORMICK BALER TWINE

The smooth, knotless, "tailored" twine for trouble-free baling. Made in Conodo—quality controlled.

TRY A MCCORMICK NO. 45

THE MOST *Copied* BALER EVER BUILT

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Proved and approved by over 100,000 satisfied users in North America—and now better than ever with new features and improvements for 1957. McCormick *pioneered* floating low-level pickup, and floating auger for uninterrupted feed and big daily tonnage... *performance yet unequalled*. Bales all crops, long or short. Hydraulic bale chamber tension attachment holds desired bale density automatically. Simple knotter ties *positively*, without frequent adjustments. Non-stop plunger slices each charge, packs bales uniformly. Ask your IH dealer to show how the No. 45—pto or engine drive, matches tonnage with others claiming 30 to 50 per cent greater capacity! Get the 10-to-12-ton-an-hour No. 55 for extra big capacity baling. You'll tie big, solid "shippers" bales—with wire or twine—without costly downtime.

YOUR IH DEALER IS THE MAN TO SEE

INTERNATIONAL  HARVESTER

INTERNATIONAL HARVESTER COMPANY OF CANADA LIMITED, HAMILTON, ONTARIO

Farmhand offers lowest-cost haying all the way from field to feedlot!

8

Science And the Farm

Grass growth has been stimulated by applications of gibberellic acid, a plant hormone that has been known to the Japanese for 20 years, but which has not attracted attention of American and European plant scientists until recently. Plots of Kentucky blue grass were sprayed with solutions of the acid in October, when they were in their slow growth stage. Within four days new shoots had developed and the grass turned a brighter green. After it was cut, both the fresh and dry weights were higher than untreated samples, especially if the plants had been treated with fertilizer, as well as the hormone. The tests show that the acid may be useful for getting grass to grow in the fall and spring, as well as in the winter in warmer climates. These experiments are being conducted jointly by Drs. Curt Leben, Eli Lilly and Co., Greenfield, Ind., and Lela V. Barton, Boyce Thompson Institute for Plant Research, Yonkers, N.Y., U.S.A. V

Micro-organisms in a cow's rumen may be able to take the bite out of some insecticides used on forage crops, before the chemicals can harm the cow, or become deposited in the body tissues. If further research bears out early University of Wisconsin findings, this could mean the removal of one big hurdle standing in the way of approval of the use of certain systemic insecticides on forage crops. It also may mean that a few of our present insecticides can be used on forage crops, with fewer precautions as to spraying dates. It was known that common insecticides would not control these insects, but that certain systemic insecticides would. However it was thought that applications of the systemic insecticides, because of their poisonous nature, were a hazard. Preliminary tests have now shown that rumen juice can break up the systemic insecticide in such a way as to render it harmless. V

Milk will stay fresh for as long as 12 months if properly handled. This was revealed by studies made at Britain's National Institute for Research in Dairying. Milk packaged and frozen in pint, quart and gallon plastic bags, when melted a year later, could not be distinguished from newly processed pasteurized milk. V

A Tractor powered by a free-piston turbine engine which is being developed by Ford Motor Company's research center at Birmingham, Mich., may be on the market in a few years time. Claimed to be the first known installation of its kind, this radically new prospective source of farm power has advanced beyond the stage of laboratory curiosity and now is ready for exhaustive field tests.

Named the Typhoon, the experimental model is capable of running on a wide variety of gasolines and oils. Its design eliminates most of the expensive, complex, moving parts in present internal combustion engines. Engineers also regard it as a safe power source, because it requires no high tension electrical system or spark plugs, and uses low volatile fuel. In addition, the Company reports that the Typhoon requires no warmup period, is completely free of vibration, and shows promise from the standpoint of fuel economy.

Here is how the new engine works. Air flowing through a scoop in the top of the hood enters the gas generator — a cylinder containing two horizontally opposed pistons, free to move toward each other to compress air for the firing charge.

Fuel is injected at the center into the air that is superheated by compression between the pistons. The hot air ignites the fuel, driving the pistons apart.

Gases exhausted from the engine cylinder are collected in a surge tank, from which they flow into a six-inch-diameter turbine wheel. Action of the gases causes the wheel to spin. Power from the wheel is transmitted through reduction gears to the tractor's power train.

A compressed air bottle supplies pressure to push the pistons together rapidly to effect another firing cycle.

The diagram below shows the location of the major elements of the new engine. The larger of the two heavily shaded portions indicates the position of the free-piston gas generator. The small darker area indicates the turbine. Hot gases produced by the engine are collected in the surge tank immediately below the generator, and flow from the tank, to operate the turbine. V

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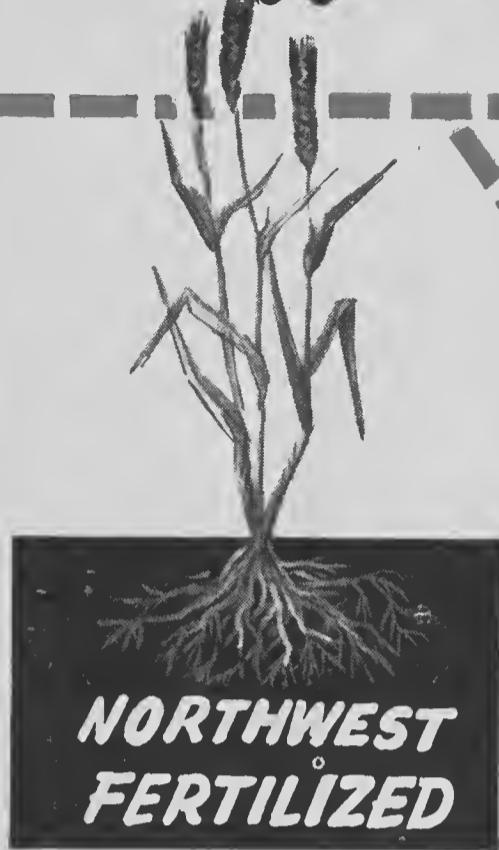
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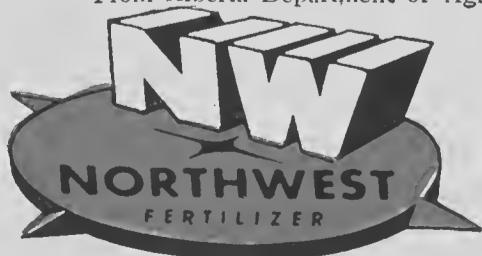
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		Increase in Yield Bushels per Acre 25 lbs. 50 lbs.	
Black and Blaek Transition (Central Alberta)	63	5.7	7.9
Dark Brown and Thin Blaek	86		9.3
Average for	149 tests	6.4	8.7

From Alberta Department of Agriculture "Fertilizers in Alberta", 1956

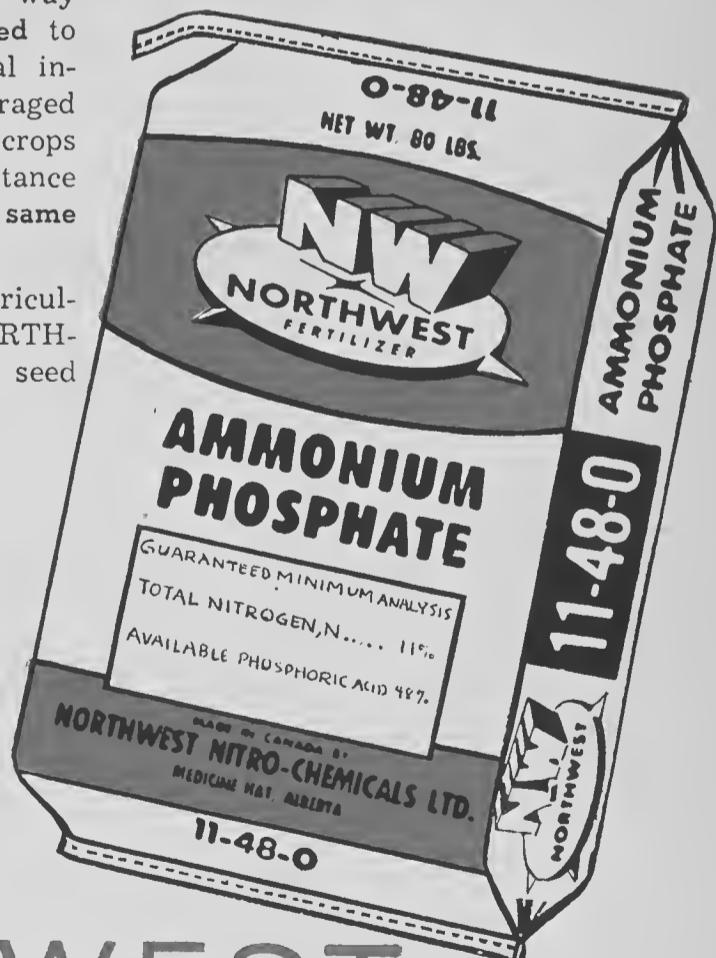


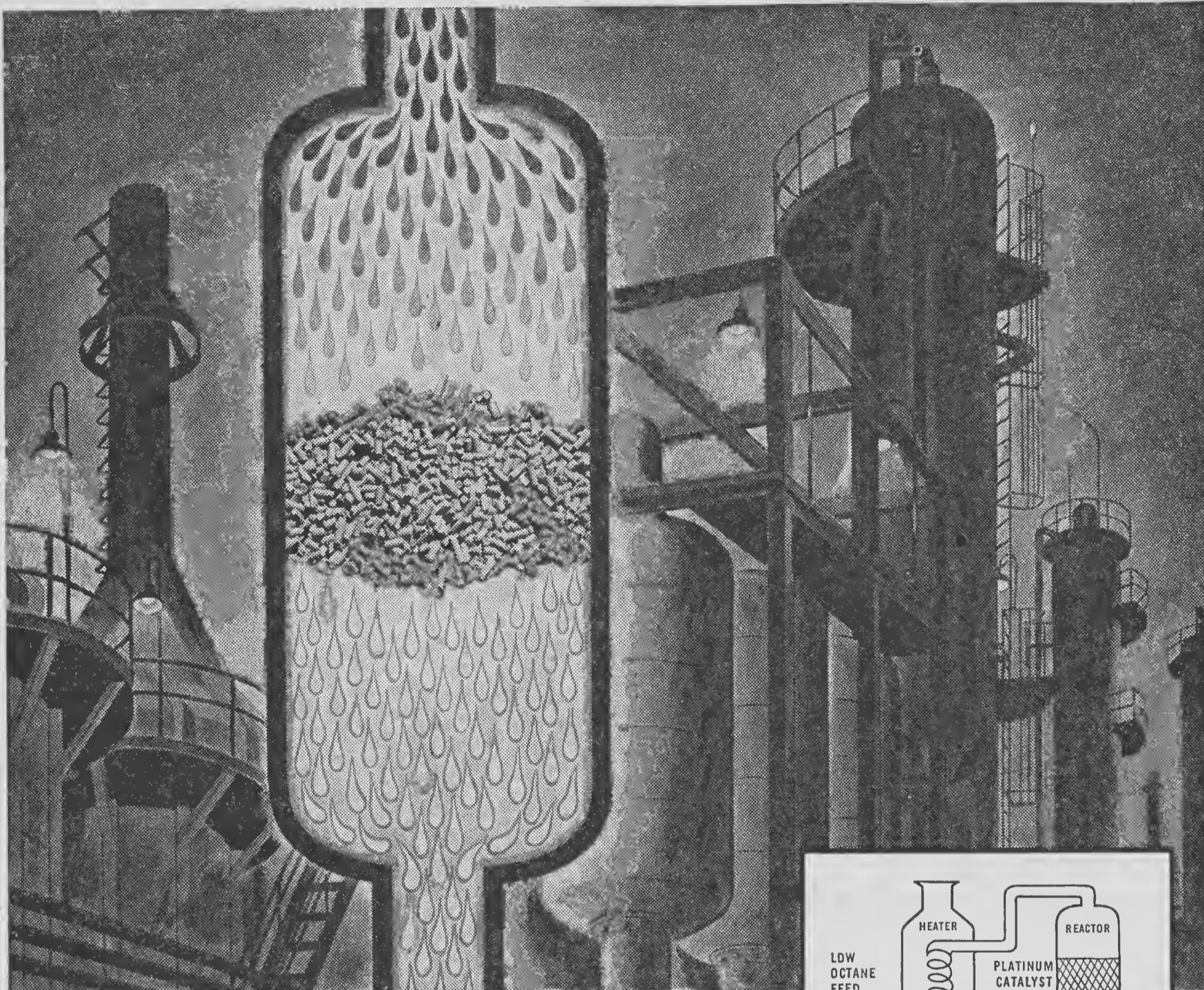
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Great Sand Hills Ranch

Ranching is an extensive affair when the work and cattle are spread over nearly 100 square miles

by LYN HARRINGTON

Photos by Richard Harrington

BIGGEST cattle ranch in Saskatchewan, and one of the largest in Canada, is the Minor Ranch, of Abbey, northwest of Swift Current. With 2,000 deeded acres and another 60,000 leased, John Minor runs some 2,200 head of Herefords.

"He's the progressive type of rancher," I was told. "Uses his airplane a lot in his work. He's also vice-president and director of the Saskatchewan Stock Growers' Association."

I pictured John Minor as lean and grizzled, with far-seeing eyes puckered by gazing over great distances.

His voice didn't sound elderly on the telephone. "Just drive west from Abbey 25 miles, and when you come to the end of the road, that's us."

John Minor, son of a pioneer rancher of the same name, is only 30. Not a trace of grey in his dark hair, nor in his wife's brown curls. In addition to cattle, they're raising four young cowboys, including six-year-old Susan, out at the Minor place.

The Minor Ranch is in what the maps call "The Great Sand Hills" of Saskatchewan. It's rolling country, with coulees, clay pans and buckbrush.

"According to an 1873 survey," John told me, "there used to be far more bush than now. The dry coulees were little lakes then, and there was lots of drifting sand. Well, today the grass seems to be winning out against the trees, and it anchors the soil better. The best way is to see it from the air."

With the young cowboys to guide the wing tips, Mr. Minor's tractor hauled the two-seater plane out of its hangar near the garage. From the air, the ground seemed flat, all contour lost. The scattered Herefords and the tracks leading to the water tank reminded me of similar scenes in Australia. All water for the stock is pumped by windmill, from unfailing wells only 33 feet deep.

While we flew, John's eyes kept scanning the ground below, noting the location of the cattle, watching for breaks in nearly 100 miles of fencing, spotting the occasional antelope, or mule deer. Then we were back over the farmland, 1,400 acres of it in oats, some barley, less wheat.

I noticed an unusual number of corrals near the farmstead.

UNTIL recently, Minor always trailed his cattle cross-country to the railway at Abbey. But two years ago, he decided to try an auction sale at the ranch instead. That fall he grouped the cattle into 32 new corrals, all numbered carload lots, and invited buyers. They came gladly. In two and one-half hours, the auctioneer had sold 1,000 cattle, which were trucked to the railway in cattle-liners.

"We had a big crowd that day, so we decided to hold it again," he said. "The Women's Auxiliary came out and served lunch, and they made a nice profit, too."

When it comes to buying cattle, John Minor doesn't often buy show bulls. "They're deliberately fattened for the occasion," he points out, "and fat hides a multitude of failings. You know, we cattlemen have a saying 'Fat has a nice color—folding green.' But, often, show bulls are too fat and sluggish to perform a good job of breeding. If I do buy one at a show, it's far ahead of time, so he can lose a couple of hundred pounds before I turn him in with the cows on July 1."

While the Minor Ranch raises and mixes a lot of its own grain, it is less costly to buy, or trade for,

The farmstead seen from the air, showing feedlot and corrals which were built for cattle auctions.



Cattle on rangeland, grazing close by windmill and waterhole, reminded the author of Australia.



Susan and Barry Minor, aged 6 and 7 respectively, have fun on horseback, with a ranch as a backyard.



[Guide photos]

The Minor Ranch is a family affair. John and Gertrude are on the corral fence here with John (10), and Ross (8).

the mixed grains that neighboring farmers can't sell on today's limited wheat market.

"I fed about 8,000 bushels of the oats-barley-wheat mixture last winter, out of the rolling-mill. That's better for the cattle and less wasteful than feeding chop. Actually, from a monetary point of view, it doesn't pay to grind grain. According to the Experimental Farm at Swift Current, you might as well feed it whole, though rolling does make it slightly more digestible."

TN the winter of 1955-56, when feeding 2,200 head of cattle, Minor ran out of roughage, and fed whole grain on the hard-packed snow. He didn't attempt to roll it for such large numbers. But he has a hammer-mill out in the wrangle field, which hammers grain for a self-feeder, for sick or thin cattle. He uses lots of oat sheaves and some bales in winter feeding. The bales are bound with twine—he hasn't used wire for four years. Twine is more economical, and it isn't always lying around waiting to trip people and animals.

"We figure on nearly a ton of hay per head for winter feeding. Last summer, I put up 2,200 tons, with the three men helping. Young John—he was nine then—and his 13-year-old cousin did the hay-raking."

Part of the hay grew out in the valleys of the leaseland. The bales were left there, and two men were camped out there for about a month during the winter. For the rest, the chinooks come often enough for cattle to rustle for themselves to some extent, or nuzzle through a foot of loose snow to get at the grass.

We taxied to a stop in front of the neat white ranchhouse set in the midst of tall poplars.

"Pop planted those trees, oh, I don't know how many years ago. Gives a nice effect and breaks the wind."

The lawn in front and the larger one at back were an emerald green. Due to the late wet spring? I wondered.

"Only partly. We've got lots of water right here at the house. It isn't good drinking water, most people say, though Gertrude and I don't mind it. So we haul from one of the wells out in the pasture."

John Minor, Sr., had the pleasure of watching those Russian poplars reach up some 40 feet before his death in 1953. John, Dode and Harry Minor, three brothers from Nebraska, came to this part of Saskatchewan in 1900. Dode had his spread north of Cabri on the Saskatchewan River, and ranned there till his death in 1937. He left one son, still ranching.

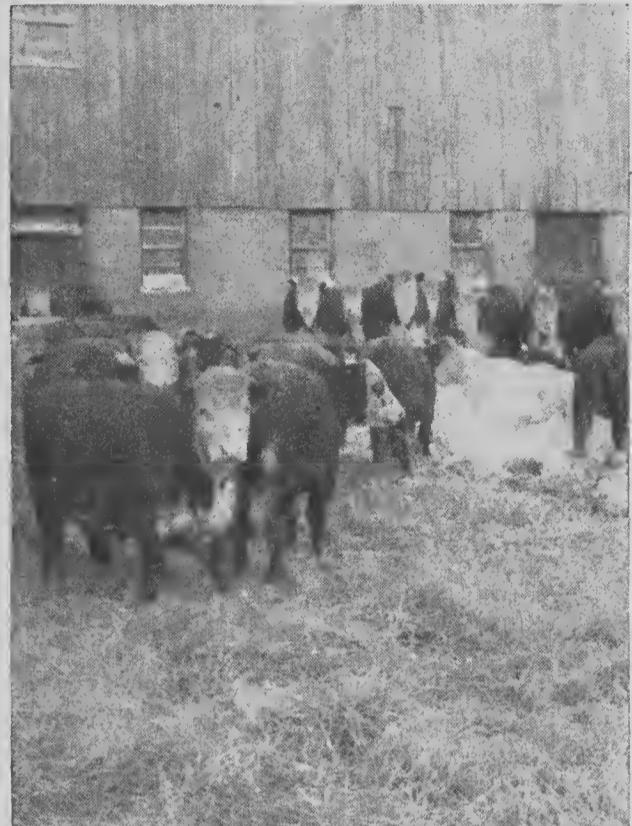
(Please turn to page 40)

Dramatic changes are occurring in the Ontario beef cattle industry to

Cut Beef Costs

by DON BARON

CHANGES are coming thick and fast in the Ontario cattle feeding business, as farmers strive to keep pace with the cheap-grain feedlots in the West, the assembly-line meat production techniques of chicken broiler plants in Ontario and Quebec, and meet the immense de-



The Moffatt Herefords at Watford, Ontario, are an example of this trend in the beef business.

mand from chain-store buyers looking for inexpensive, but high-grade, beef for their fast-turn-over meat counters.

For instance, Lyle Johnston, who grows cash crops (tomatoes, seed corn and sugar beets) on his 100 acres at Mull, in southwestern Ontario, has turned to high-roughage and low-grain feeding. A few years ago, his cattle were munching all the corn they could eat, but profits turned to losses on this program.

Then, workers at Purdue University in Indiana publicized the idea that an increase in the protein and Vitamin A content of the beef supplement permits animals to make better use of roughages. Their plan made it possible to fatten cattle by using lower-quality roughages, or by using more roughages and less grain. Now the "A type" supplement is a big seller with several feed firms.

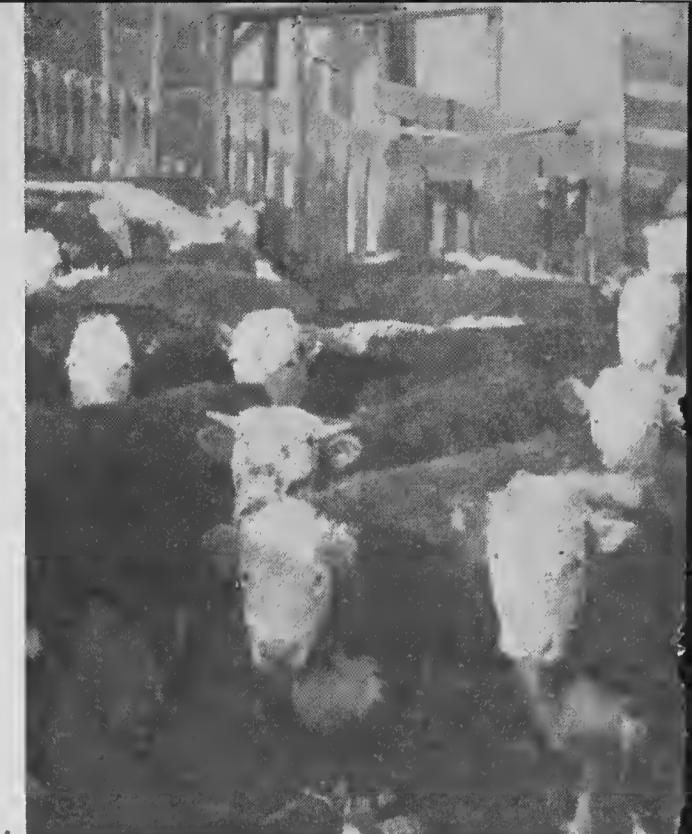
Mr. Johnston tried the program, too, and now he feeds corn silage and three-and-a-half pounds of Supplement A, per day, to yearling steers.

"Gains are slower, but profits bigger," he explains.

During the past three years, on 180-day feeding periods, his steers averaged gains of 316 pounds, 315 pounds, and 354 pounds. The final year was better, because the silage was heavy with ripe corn before going into the silo, he explains.

Now that this program is paying off, he plans to expand his feedlot to handle 50 head per winter, or double his present number.

Agricultural Representative Kent Lantz, at Chatham, says that the Johnston program is a common one today. "Cattle must compete at the market place for the grain, in this cash-crop area, and it is unusual now for steers to get 12 or 13 pounds of grain a day, even while on full feed." But, he adds,



Harry Knight of Mull gives his calves a corn and cob, hay and silage, and feeds supplement and stilbestrol to

"this cost-price squeeze isn't beating our Ontario feedlots. In fact, it's making skilled feeders out of those who are sticking with it.

"I visit Michigan feedlots occasionally, with our cattlemen, and the Americans laugh at our methods. One chap we visited was feeding over 20 pounds of corn a day to finish steers.

"He told us we didn't know how to feed. 'What, only six or eight pounds of grain?' he asked. But admitted paying about 18 cents for feeders, and selling them for 23 or 24 cents. Our feeders are lucky to get a cent or two, margin."

JIM McGUIGAN'S program at Cedar Springs, near Blenheim, is a little different. He feeds off 240 Aberdeen-Angus calves a year from his orchard farm, for the Red Triangle beef market. A horticulturist first, he studied and mastered the reference book,

(Please turn to page 78)

MILK IN BULK FOR ONTARIO HOMES

HOUSEWIVES can buy their milk in two- or three-quart containers, as well as in the traditional single-quart bottle or carton, in Ontario's biggest market, Toronto. This newest development in the dairy business promises to bring further problems and possibly some benefits to the groups involved.

Housewives hope it will reduce handling costs and give them cheaper milk.

Farmers hope that lower prices will increase consumption and thus bring them bigger quotas. However, they also fear lower prices, and are trying to stand firm against processor-distributor demands to re-negotiate milk prices. Roy Lick, Secretary-Manager, Ontario Whole Milk League, an organization representing about 17,000 producers in 120 markets, warns, "If dairies try to cut prices of the milk they buy from the farmer, they are in for the 'darnedest' fight they have seen yet." But he adds, "In the larger cities, our producer groups are strong enough to stand up against that kind of demand. It's the groups in the smaller centers who will have the greatest difficulty."

Dairies themselves are not too sure what the new containers will mean to them. Many believe that the opposition to big containers has broken down, and that they must go along with their competitors.

It's a different story again for the milk deliverymen. The International Brotherhood of Teamsters, their bargaining union, is concerned lest the bigger containers, sold at a discount on a cash-and-carry basis from stores, will further cut into earnings of its workers. A union spokesman says that chain

store sales of single-quart bottles has cut into weekend deliveries already.

Whatever the result, the new development came to a head in the Toronto area when an Akron, Ohio, firm was granted a license to distribute milk in the larger containers. Earlier, this same firm is reported to have introduced the large containers into the Akron market, retailing them through its own outlets. The economies of the larger containers proved to be sufficiently attractive to consumers that the dairy soon won a dominant position in the Akron market. Faced with similar competition in the Toronto market, local dairies decided to adopt the larger containers themselves.

THE large bottle was introduced first to Ontario a year ago, when a man in Aylmer began selling milk in three-quart jugs at a discount. The idea spread to one or two other centers, and more recently to a Guelph dairy which introduced the big containers into chain stores in that city. The development soon flared into a price war.

Another dairy, lacking the chain store outlets, and fearing a loss of customers as a result, launched its own program by making the jugs available on home-delivery routes. Customers could buy a single quart for 22 cents, or a three-quart jug for 58 cents—the three-quart purchase giving them a saving of eight cents.

Faced with this situation, one of Ontario's largest dairies with a branch in Guelph, cut the price of its single quarts in that city to 20 cents. The other dairies, to remain competitive, followed suit, and that's where the matter stood toward the end of April.

Dairies in Toronto apparently decided such a price war would benefit no one. With a view to making one less likely, several dairies seemed to be preparing to introduce the larger bottles simultaneously. In addition, they are apparently planning to outdo the Akron firm by arranging to introduce two- and three-quart containers in both cardboard and glass.



Mrs. H. Hanna, Brampton, finds the three-quart milk jugs "a real convenience" for her family.

There is a movement afoot in both Canada and the United States to change the unit of measurement in the grain trade. This story tells about . . .

The Awkward Bushel

by LORNE HURD

IS the old familiar bushel on the way out in the grain trade? Happenings in recent months would seem to indicate that it is.

Last year, various grain trade organizations asked the Board of Grain Commissioners to consider changing the unit of grain measurement from the bushel to the hundredweight or cental.

The Board immediately began to study the subject. Preliminary findings were placed before the Western Committee on Grain Standards in October, 1956. This was done so that members of the Committee would be informed of what was involved, and so that they, in turn, could take the information back to their various organizations and communities. In this way it was thought that ample opportunity would be provided for everyone to examine the proposal before a decision was reached.

Hence, in varying degrees, the subject has been considered by the four western grain handling co-operatives, the North-west Line Elevators' Association, the Canadian Millers' Association, the Canadian Feed Manufacturers' Association, the Canadian Wheat Board, the provincial departments of agriculture and other groups. As far as The Country Guide has been able to determine, these discussions have resulted in widespread support of the proposed change.

Further impetus was given to the proposal when the Canadian Federation of Agriculture unanimously passed a resolution in January calling on its board of directors, "to press for the introduction of the hundredweight system for the measuring, merchandising and handling of grain and seeds, in place of the bushel measurement now in use."

Finally, increased significance is attached to the whole question here in Canada, because a campaign to discard the bushel in favor of the hundredweight is underway in the United States. It is reported that a strong feeling exists south of the border favoring "the hundredweight by '58." Some Canadians believe that the adoption of this change in the United States would speed the change here, and that it would be desirable if both countries made the change at the same time.

THE main reason given for making the switch to the hundredweight is that the bushel is cumbersome and out-of-date and is of no real use in determining the value of grain. It is argued that it is unwieldy and time- and labor-consuming in the recording and processing of grain transactions.

Farmers will readily understand that the change-over to the hundredweight is an important step. Its adoption would not only have a marked effect on the day-to-day operations in commercial channels, but would have a considerable bearing on the thinking and operations of producers. Let us look

more closely, then, at the advantages and disadvantages of the proposed hundredweight system.

Two questions arise: "What is a bushel?" and "Why, precisely, has it become cumbersome and out-of-date?"

The first question cannot be answered fully in a few words. The bushel was originally developed as, and remains essentially, a measure of capacity. Nevertheless, over the course of many years, it has come to have several different meanings, depending on how it is defined, and the context in which it is used. Let us examine three of these differences in the bushel.

FIRST, there are two distinctly different bushels in use in North America. One is the Imperial bushel used in Canada, which contains 2,218.19 cubic inches. The other is the Winchester bushel used in the United States, which contains 2,150.42 cubic inches. In other words, the standard bushel measure in Canada is three per cent larger than its counterpart in the United States.

Second, the bushel is not only a measure of capacity, but also of weight. Bulk handling of grain and other commodities was, of course, mainly responsible for the adoption of the bushel weight. The Canada Grain Act defines the bushel as a quantity of grain weighing 34 pounds, when used with respect to oats; 48 pounds for barley and buckwheat; 56 pounds for Indian corn, flaxseed, or rye; and 60 pounds for peas and wheat.

It is in these bushels that most grain is bought and sold, and which would cease to be used if the hundredweight system is adopted.

The third use to which the bushel is put is in connection with grading. Every farmer knows that the minimum weight per measured bushel is an important indicator of quality and, therefore, a criterion for determining the official grades upon which grains are valued. For example, the statutory minimum weights for hard red spring wheat range from 62 pounds for No. 1 Manitoba Hard to 53 pounds for No. 4 Special. In establishing grades, the Inspection Branch of the Board of Grain Commissioners uses the bushel in its strictest sense, and it determines weight per measured bushel accurately. However, this is not the same bushel the elevator agent talks about, because he deals only with bushels of 60-pound wheat, 48-pound barley, 34-pound oats and so forth.

Frequently, too, of course—to confuse the picture even more—the top grades of wheat actually weigh 64 to 65 pounds per measured bushel, or well above the 60- to 62-pound minimums set for these grades, and the 60-pound bushel in use for trading purposes.

The Imperial bushel, therefore, is a reflection of neither true volume nor value; nor does it provide

a uniform measure of weight applicable to all grains. Under these circumstances it is logical to expect, in spite of the fact the bushel system has worked reasonably well for many years, that a search would eventually be made for a simpler unit of measurement.

THIS leads us to the proposed alternative, the hundredweight. Proponents of this unit suggest that it has several advantages. Foremost among these is the economies it will bring, because it will eliminate numerous conversion calculations (from pounds to bushels and from bushels to pounds) that are now necessary as grain moves from the farm, through trade channels, to its final market.

Some examples of the many conversions now necessary will serve to illustrate the point. The numerals give a progressive count of the number of conversions:

(1) When a farmer or trucker delivers grain to the elevator, the grain is weighed in pounds and must be changed to bushels before a storage receipt, or cash ticket, can be issued.

(2) When an elevator agent cleans grain covered by storage receipts, he must convert the weight of the cleaned grain, which he weighs in pounds, into bushels.

(3) and (4) When an elevator agent makes a local sale he first must convert the order from bushels to pounds so that he will know how much grain to weigh out; and after he has weighed out the grain, he must convert the pounds to bushels to complete the sales invoice.

(5) When an elevator agent ships a carload of grain, he weighs the shipment in pounds, and then converts it to bushels for his shipment receipt.

(6) When cut-offs are made in the country elevator, all weights are first made in pounds and then converted to bushels.

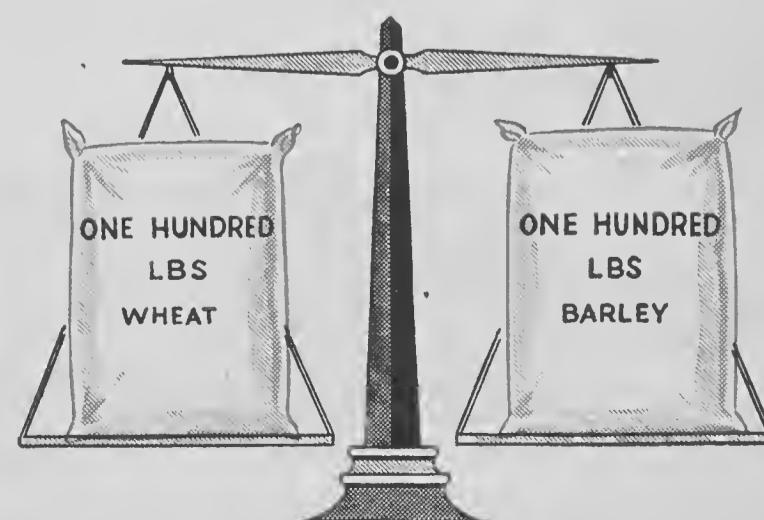
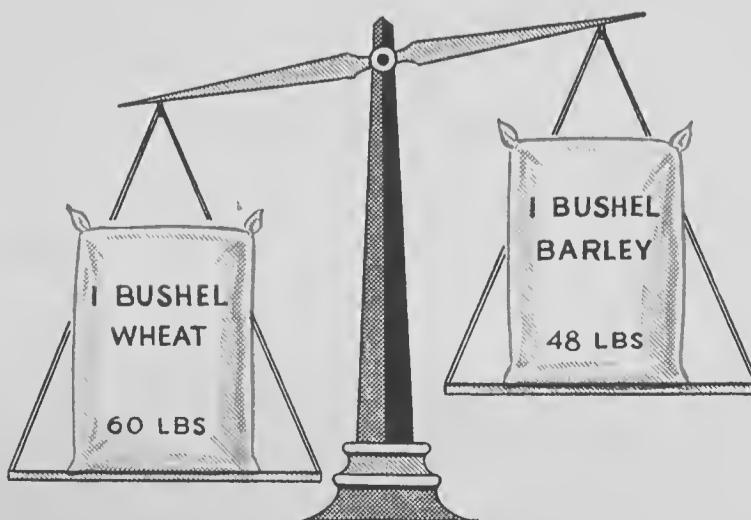
(7) and (8) When a car arrives at a terminal elevator or mill, the grain is weighed in pounds, and then converted to bushels by both the elevator company and the Board of Grain Commissioners, independently.

(9) and (10) Within the terminal, when grain is cleaned or out-of-condition grain is treated, there is a double conversion from bushels to pounds, and from pounds back to bushels.

(11) and (12) When a terminal is ordered to ship out so many bushels, the order is converted from bushels to pounds for the weighman, and after the actual weights have been taken in pounds, they are converted back to bushels for reporting purposes.

(13) When terminals are weighed up, the grain is weighed in pounds, and then converted to bushels.

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Land of the Llamas

Peru, the home of the potato, is a land of many contrasts and mountains, in which agriculture is varied and largely primitive

by CAMERON REID

HIGH on a hill overlooking Lake Titicaca I sat on a rock outcrop and gazed out over this highest inland sea in the world that stretched, at an elevation of 12,500 feet, far eastward into Bolivia. Behind me, the high peaks of the Andes stood out like ramparts against a blue sky. Unscreened by clouds, a bright noon-day sun poured down its welcome warmth on me, and on a herd of llamas grazing on a cactus-infested knoll below me. To these haughty lords of the highlands, proudly emblazoned on their country's coat of arms, it was just another day in an age-long saga extending back centuries in the pre-Inca days. To this Canadian, however, it was a very special day. Not because it was January 1, 1956, but because I was in Peru satisfying a life-long ambition to see this history-laden land of the llamas—and the ancestral home of the potato.

Finally, in December, 1955, opportunity said "Go"—and I went. By that time, of course, it was the "papas" and not the lure of Inca gold that made me decide to embark on a holiday trip that, before I returned to Canada, was to take me 1,300 miles south of the mythical equator line and to cover more than 15,000 miles by seven different airlines, railway, rail-car and motor car.

In shape, Peru is much like California, some three times larger. It has a reported population of a little more than 8,000,000 people, about 65

per cent of whom are Indians, 30 per cent mixed Indian and Spanish blood, and the remainder Spanish and other European stock. A number of Canadian and American business men are making a living for themselves and their families in the prosperous oil and mining industries scattered throughout Inca Land.

AGRICULTURE must be considered an important industry in the republic, as it apparently has fallen heir to the old president's palace about a mile distant in a newer section of the city surrounded by some well laid out parks. The day I called at the offices of the Ministry of Agriculture (by appointment with the general secretary, or deputy minister) a Santa Claus party was in session for the kiddies of the employees. Complete with colorful costumes and all, the Indians were being brought in by truck from outlying points and it was quite a sight to watch them pour into the courtyard and line up for their Christmas cheer.

One of the best ways to study the agricultural products of a country, I have discovered, is to visit the local markets; and this I did whenever possible as I travelled around Peru. As might be expected, the markets in Lima are larger and more varied than those in some of the inland cities. In Lima, for instance, in addition to the usual potatoes, tomatoes, carrots, corn-on-the-cob, broad beans, eggs, meat and other produce from the land, some of the stalls displayed corvina and some of the other fine fish caught in the nearby cold waters of the Humboldt Current, which plays a big part in giving Lima an all-year-round temperate climate.

I visited experimental stations in the agricultural regions centered around Cuzco, Puno and Arequipa. Wherever we went throughout the highlands of central and southern



Llamas, which are the beasts of burden in Peru, travel the centuries-old Inca road to Pisac, with the barren, eroded hills of the Andes in the background

[Ken MacCrimmon photo]

Peru, we somehow found time to walk through the local markets and take a look at the produce on display. If, at times, Señor Carlos Ochoa, supervisor of potato improvement in Peru, had difficulty in finding a suitable English equivalent for some product from a Peruvian farm, the botanical name, as often as not, supplied me with the necessary key to the species or product displayed.

One thing that particularly caught my eye at Puno, on the shores of Lake Titicaca, were the bags of chuno, the Peruvian name for dried or dessicated potatoes that have been processed by the Indians since long before Columbus discovered America. A few days before, at the experimental station just outside Cuzco, the old Inca capital, I had seen two of the varieties commonly grown for this purpose, *Solanum juzepzuki* and *S. ruki*. Also in the Puno market were big bags of coca leaves produced in the tropical areas and chewed freely by the Indians, particularly at the higher altitudes, for the cocaine contained in the leaves.

Of all the markets visited and interesting farm produce seen in Peru, the one at Urubamba was outstanding. This little village is situated near the river of the same name, in a fertile valley once held sacred by the Incas, and is reached after some 50 miles of driving over mountain roads from Cuzco. Señor Ochoa said that the valley is renowned today for its fruit; and the day we visited the market we saw many local strawberries and cherries of good quality. This was December 28, and as we travelled around that day we saw many small orchards in the valley, with plums turning color, and peaches and apples well along toward maturity; promising a bountiful harvest.

WHEN I arrived in Lima a week before Christmas, summer was in full swing, with afternoon temperatures around 75 degrees F. Fly southeast over the Andes, at 19,000 feet, to Cuzco, and you'll find yourself smack in the middle of the rainy season. And this pretty well holds, I was told, for the jungle country north and east of Cuzco, which is all part of the great Amazon drainage system, where such tropical crops as tea, coffee, cocoa,

oranges, lemons and bananas are produced in prosperous haciendas.

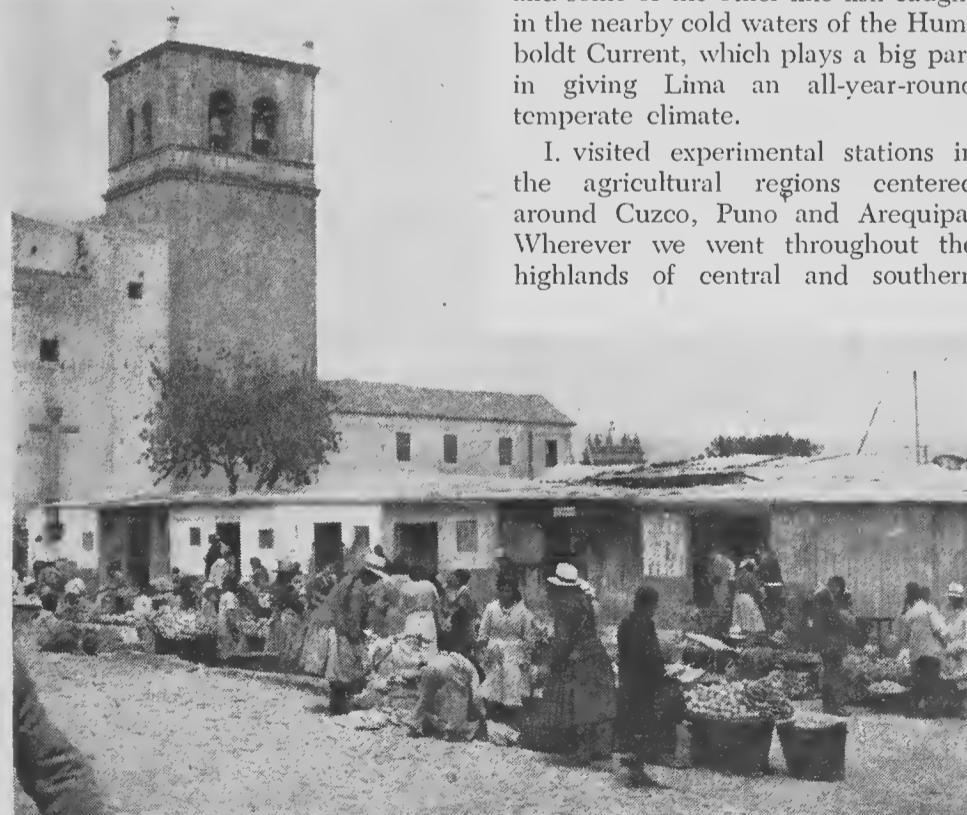
The closest this reporter got to seeing the jungle was during a side trip made one day from Cuzco to see the famous ruins of Machu Picchu. This is the old Inca fortress thought to be built by the master builders when they had pretty well perfected their building technique around 1400 A.D. In a diesel rail-car, built in England to run on the narrow gauge railway, we went dashing through narrow mountain gorges following the turbulent Urubamba River as it hurries to the Amazon.

Never have I seen such growth as I saw that day. Even the cactus seemed to become more beautiful and the colors more vivid as we approached the jungle. I suppose I almost stopped breathing when I saw my first orchids growing in great profusion in a big tree beside the river bank—their sheer beauty and grace was so eye-catching. At first I thought it must be a new kind of flowering tree, until I spotted the orchids clinging to the branches. Some trees only had an orchid or two, I noticed; others were nearly covered with them; and the occasional tree was almost dead, as though it had "hosted" too many of the gorgeous parasites. Many times, as we sped by some native's small holding along the railway right of way, I spied a geranium that had taken to the jungle nearby where it had attained not only amazing growth, but apparently had taken on an added depth and intensity of color.

Most people who come to Machu Picchu—and thousands do so—I suppose are drawn there by its amazing archeological wonders. Believe me, there is much to hold their interest. But to me, a lover of the mountains, with strong horticultural leanings, this citadel perched atop the lofty pinnacles of the Andes offered a brand new world of exploration and enchantment.

If you have the eye—and the nerve—for it, just look down, down over the rocky ledge to where the Urubamba River dashes along to its mysterious jungle rendezvous with the Amazon. Then bring your eyes gradually back to the lofty summits wrapped in

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This scene at Cuzco is typical of the markets of Peru, where farm produce is sold, alongside household goods, and distinctive, hand-woven clothing.

WEATHER IN A NEW LIGHT

NOT many weeks ago, newspaper stories datelined "Denver, Colorado" told of a new and revolutionary development in the field of weather forecasting; the analysis of future weather by electronic machine.

The stories referred to the firm of Irving P. Krick Associates, Inc., of Denver, The Country Guide's weather forecasting consultant, whose accurate long-range forecasts have been found on The Country Guide feature pages since 1954.

The electronic machine is the Remington Rand UNIVAC 120—a mass of tubes and wires capable of solving complicated weather problems with a rapidity equal to that of fifty thousand human beings. It is not that the UNIVAC is more accurate than humans, but it's faster. The forecasts that have appeared in The Country Guide, were developed through a method developed by Dr. Krick during the past 25 years. This technique holds that all weather in the North American Continent is more or less governed by an invisible "hill" of high-pressure air, located semi-permanently over the East Pacific Ocean.

This "hill" in the atmosphere is a migratory thing. It moves northward in the summer, with the sun; southward in the winter, with the sun; and occasionally takes off on a trip independent of "Old Sol," to meander at random through the atmosphere over the sea. Wherever it goes, it has a tremendous effect on our weather. Around such a hill, or high-pressure area, the winds always flow in a clockwise direction. These winds pick up low-pressure disturbances far out in the Pacific, and steer them onto the continent at a point roughly at the latitude of the northern edge of the high. Thus, if the high is far to the north, storms are steered onto the continent over Alaska, as they are most frequently during the summertime; while, when the high is to the south, the storms may enter the continent at a much more southerly latitude.

During the 1930's, when Dr. Krick was head of the meteorology department at California Institute of Technology, he became convinced that the

A glimpse into the future of weather forecasting for the farmer, as envisaged by

IRVING P. KRICK ASSOCIATES, INC.



• Luoma photo

atmosphere is an orderly thing. Any type of weather pattern that occurs at one time is sure to occur again, when conditions are similar, and thus bring a repeat performance on the weather. Further, Dr. Krick was convinced that the guiding influence of the East Pacific High was dominant in North American weather. In the days just before World War II, the U.S. Army Air Forces, and General H. H. Arnold, became interested in Krick's work;

and together, they cataloged every daily weather map for North America since the year 1899. Close study of these maps indicated that every weather occurrence on the North American Continent was the result of only eleven basic weather patterns, each controlled by the East Pacific High.

In other words, when that Pacific High was in one position, one type of weather ensued over the entire

continent; and when the high shifted, another type of weather resulted—all in orderly fashion.

THE three discoveries—the influence of the high, the eleven basic weather patterns, and the tendency of repetition in the weather, were sufficient for Dr. Krick to see the distinct possibilities of accurate long-range forecasting for several years in the future. Using the same basic principle, he was instrumental in forecasting the conditions for the famous D-Day landings in France during World War II, and for the Allied Crossing of the Rhine.

With the war's end, work on the Krick theory progressed steadily, halted in its advance only by the limitations of the human mind and time. The advent of the electronic computer, the UNIVAC, provided something of a solution to that problem. With its huge capacity for absorbing, remembering, and computing data from punched cards, the UNIVAC can accomplish in a few minutes what it would take one man months to do. Into the UNIVAC, Krick and his staff fed punched cards logging the information of previous positions of the Pacific High and their relation to the eleven basic weather patterns. From the UNIVAC came the answers in the form of when, and how often, in the future, the same basic weather patterns would prevail. With this astounding machine, a weather pattern for the future, which one man would work up to three months to calculate, would be developed in 20 minutes.

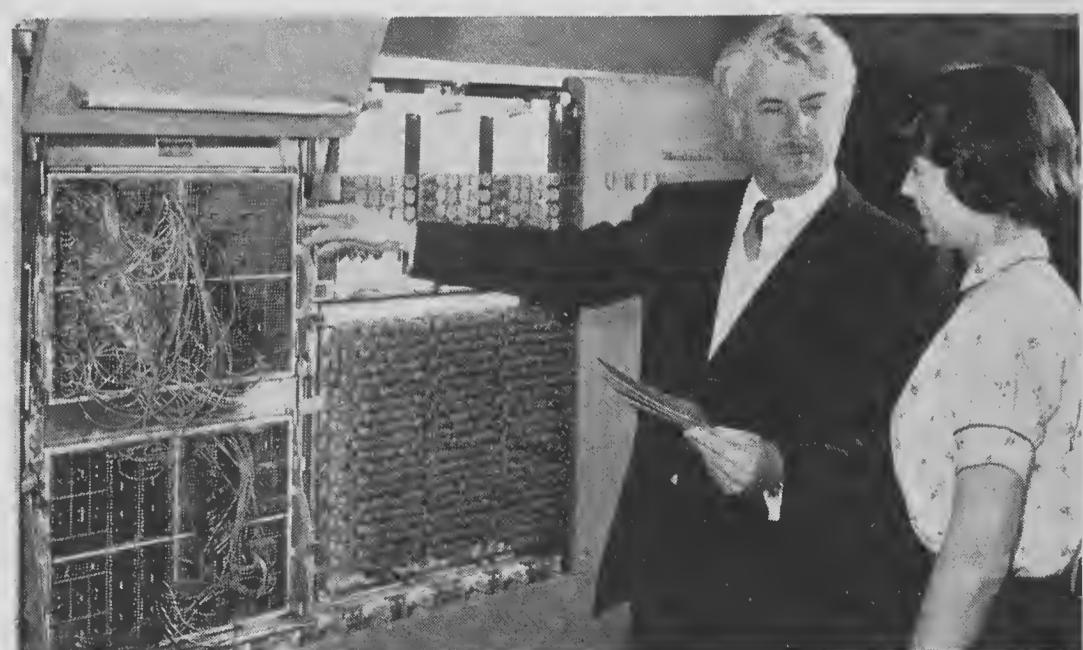
Krick put the UNIVAC to its first public test in September, 1956, when his executive vice-president, Newton C. Stone, scanned a UNIVAC solution and promptly announced that general storminess would occur over much of the U.S. the day before Christmas, and hence, it would be a white Christmas many places in the U.S. The forecast, developed three months in advance, verified perfectly in 44 of the 48 states, with near misses in the other four states.

The inauguration of President Eisenhower on January 21, 1957, provided the setting for the most severe test for Krick and the UNIVAC. Ap-

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Newton Stone, Dr. Irving Krick and Dick Hammond look at the map which shows the pattern of air circulation about the earth's surface.



Dr. Krick beside UNIVAC 120, the electronic marvel, which in 38 seconds processes weather information normally taking about 1,000 man-hours with trained personnel.

Benny and the Mermaid

by LESLIE GORDON BARNARD



Illustrated by Emile La Liberte

MAYBE it was the way he came running in from the street, flushed from some exciting play, or a way he had of standing hands in pockets, saying, "Mum, can I do that?" or "May I have that?" which now, when he had run out again, made me look up quickly at Benny's picture on the mantelpiece. Of it could have been the way a slant of sunlight fell on his tousle of fair hair. I saw my wife was aware of my glance; her eyes met mine. They said, "You are remembering!"

Yes, I was remembering Benny. My brother Benny.

That was the year our parents went to Europe, a sabbatical escape for father from an exacting professorship in physics. That was the year Benny and I were sent to lodge for the summer with a Mrs. Pritchard, who had been highly recommended. We would have sea-air and the careful oversight of Mrs. Pritchard herself. Benny was eight that year, but I was considerably older; old enough to have a first love affair, the kind of thing that can never happen quite that way again. I who had thought little of girls was now almost bemusedly aware of one who smelled young and sweet and spoke in a low, exciting voice. Her name was Helen. She was a year at least older than me. I had a nagging wonder if there was any law against marrying a woman older than your-

self, but I could find no book on the subject to set my mind at rest. I would as soon have sought favors of a dragon as to have asked Mrs. Pritchard.

Benny's love was a plane. He was making it most of the time we were at Mrs. Pritchard's, laboring over it long hours in his quiet, absorbed way, and hardly letting me touch it for fear that my clumsy fingers might do some mischief. I knew that when it was finished it would be a kind of masterpiece. It would be something much more than the materials that went into it. It would be Benny, and Benny's love and Benny's imagination as well as his skill. I remembered him leaving it out one night under an apparently clear sky, and how rain came windblown off the sea, and how he was up and running in wild haste to rescue it; coming in soaking wet, to be met by Mrs. Pritchard in dressing gown and tightly knotted curls, demanding of him what in the world he was up to, Benny standing there enduring her wrath with a half smile because no harm had come to his beloved plane. To her it had all along been a nuisance, an offence. She was always getting stuck with a messy glue-bottle or some such thing.

MRS. PRITCHARD never was keen on Benny. He couldn't quite conform and I think she just couldn't

understand anything that was—different. I'm sure that what she did that awful day seemed right to her. She did it for the good of Benny's soul. I was the serpent in the grass, partly, I suspect, because I resented a little the secret life that Benny had. Benny was always imaginative and creative, and I wasn't, and more because of Helen.

I think perhaps Benny was a bit lonely, that he wanted, more than I thought he did, to come out from his secret life and share things with me. He would tag along after Helen and me, uninvited and unwanted, greatly cramping our style. You couldn't stop him. I'd tell him to go chase himself and he was like an overfond dog you ordered home; when you glanced back there he'd be still following you. And that, of course, contributed to the awfulness of that day—the day that Benny saw the mermaid.

He'd been up along the cliffs trying out his plane, which at last was finished. He came hurrying back all flushed and excited.

"Know what?" he cried. "I just saw a mermaid."

I stared at him. I thought, well, things could go too far. Somebody ought to slap the kid down, and maybe that somebody should be me.

"You're nuts," I said.

"It's true," Benny said. "I just saw a mermaid."

Benny lived in a world of his own, very real to him—maybe he had wanted, on that awful summer day, to share his secret with me, at the lodge beside the sea

"Where?"

"Down in the ocean."

I laughed. "What did she look like?"

Benny drew a long breath. His eyes queer and dreamy, he said, "She had a—green tail with scales like a fish, an'—an' long lovely gold hair all dripping wet. Don't you know what a mermaid looks like?"

"Yeah," I said, "in a book."

"This one," Benny said slowly, "wasn't in a book. It's—it's honest real."

"You're a screwy little liar," I accused him.

"I'm not a liar," Benny said stoutly.

"All right," I conceded, "you thought you saw one."

"I wasn't thinking," Benny said.

IN the distance I could see Helen waving to me. I knew she was wanting me to ditch Benny and come along; but Benny saw, too, and for a moment forgot his mermaid. He wanted to know where we were going. I said it was none of his business. But I knew, I knew for sure he'd come tagging along again. And, worse than ever, today I didn't want him. I didn't want him talking crazy things in front of Helen. She'd maybe think our whole family was nuts. I wondered how to stop him and at that moment Mrs. Pritchard came out carrying some scraps for her hens and, on impulse, I said, "What do you think Benny's trying to tell me, Mrs. Pritchard?" Instantly, from the look on Benny's face, I knew I had betrayed him.

But Mrs. Pritchard was asking, "What?" and I told her, "Benny thinks he saw a mermaid."

"I didn't think," Benny said. "I did so see one."

Mrs. Pritchard stood looking at him, the thing slowly gathering in her; you could see the tightening of her lips. Then she said, "There's one thing I won't have in my house, and that's a liar."

Benny thrust his hands stubbornly deep, into his pants pockets.

"It's not a lie," he said.

Mrs. Pritchard's hand, holding the dish of scraps for the hens, went white-knuckled. She said, "Until you take that back and say you're sorry there'll be nothing for you in this house." She went on toward the hens, and I, feeling rather awful about it now, said quickly, trying to make it easier for Benny, "Mrs. Pritchard, he was just playing—just pretending."

"I wasn't pretending," Benny said. "I did so see a mermaid."

Mrs. Pritchard swung around sharply as she flung the scraps to the waiting clucking hens. "For that," she said, "you'll get no dinner."

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All Hands Repel a Moth

Canadian and provincial governments join forces for a massed attack on a worm

by H. S. FRY

HOW do you like wormy fruit? Neither do we. Hardly anyone, in fact, would acknowledge a liking for worms, either inside or outside of fruits.

Most of us accept science more or less casually. It is all around us, affecting everything we eat and drink and wear. We take it for granted, just as we do the many laws that surround us and protect our everyday living. Just because we do take these things so casually and matter-of-fact, we occasionally need a demonstration striking enough to get public recognition.

A year or so ago, we had such a demonstration in the case of Salk vaccine for the control of polio. Right now, in British Columbia, we are getting one within agriculture itself; and all because of a little moth. This one is called the oriental fruit moth. It had never found its way into the Okanagan Valley until last fall, when it came in with a few truckloads of peaches, quite innocently brought in by a canning factory, from the State of Washington. It was hidden inside the peaches in the form of larvae—worms, to you—which hatch from the eggs laid by the moth, and burrow into the flesh of stone fruits such as peaches, plums and cherries. Having got in, they virtually pull the hole in after them, because it is difficult, if not impossible, to see where they entered.

This accidental entry of the oriental fruit moth into British Columbia has brought about an unprecedented mobilization of all appropriate forces of both the federal and provincial governments, to keep it from spreading. The vigilance of the officers of the Plant Protection Division, Canada Department of Agriculture, was responsible for spotting it, but the scientific information possessed by the entomologists as to the life history of

the insect, made prompt action possible; while the co-operation of both governments and growers, as well as the canning factory operators, brought about thorough organization and the mobilization of many helpful agencies.

AS nearly as practicable, every single insect must be stamped out, but the result will not be known until September 30. The cost will not be less than \$50,000, and could run substantially higher; but the estimated annual cost to the Okanagan growers, if it is not stamped out, is around \$200,000.

The control project is officially called the Oriental Fruit Moth Eradication Project, and it is directed by a Headquarters Policy Committee at Ottawa, of which the chairman is the chief of the Plant Protection Division, Canada Department of Agriculture. There is an Okanagan Operating Committee, of which the chairman is a special officer of the Plant Protection Division sent out from Ottawa. With him are associated officers of both the provincial and federal departments. Because plant protection is a federal responsibility, the Department at Ottawa has assumed direct responsibility for the actual control measures. These involve a great many details, but may be grouped broadly. There is the fumigation of buildings and soil, involving a total area over a million cubic feet, including two canneries, an orchard, a hillside area, and a city dump. There are 57 acres to be sprayed intensively; some preliminary research to be done; and a fairly large number of trapping and banding stations to be set up within the infested area, as well as up to a mile distant, which will be regularly watched and inspected between April 15 and September 30.

The provincial government is responsible for the oiling of roadways and yards at the two canning plants;



[Guide photos]
The fumigating team seals the cannery building tightly, using treated nylon tarpaulins, which are needed to prevent the methyl bromide gas from escaping.

spraying the entrance to the cold storage at West Summerland; for removing and burning the trees in two orchards, and levelling the land; for arranging for compensation to the growers; and for assisting in organization and general supervision, providing transportation and equipment, and for co-operating generally through its science and horticultural services.

The organization of such a project involves many details. A commercial company with the necessary equipment to fumigate large areas was brought in from California. A representative of the U.S. Department of Agriculture at Oakland has been present as an observer and co-operator. A special mobile laboratory has been necessary to facilitate testing from place to place. Special fumigation tests were made at the Science Service Laboratory, London, Ontario, to determine correct amounts (methyl bromide) to be used. The strength of the fumigant was tested every two to six hours for a 48-hour period, by means of 12 gas sampling stations and the use of a gas analyzer. An electric exhaust fan which would move 5,000 cubic feet of air per minute was required. All sewage lines were plugged at the outlets. Three guards were constantly available for the full period of fumigation.

Special electrical service was needed for the fumigation of the orchard soil. The equipment brought in from California had to be cleared through

(Please turn to page 81)



Plant protection expert records data, while operator is turning on the gas.



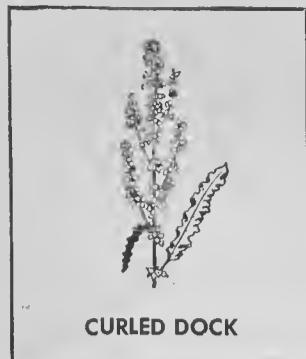
The amount of gas in the cannery is checked by technician in mobile lab.



After fumigating of West Summerland's cannery building is completed, the tarps are spread over apple boxes in the surrounding eight-acre orchard.



All wood was burned before the orchard was fumigated, after discovery of oriental fruit moth in boxes of peaches imported from the United States.



CURLLED DOCK



LAMB'S QUARTERS



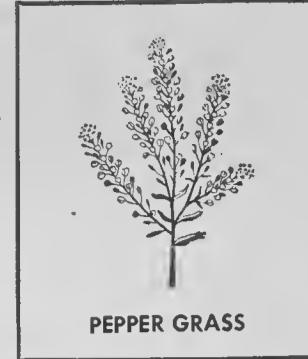
PIGWEED



WILD MUSTARD



SHEPHERD'S PURSE



PEPPER GRASS



WILD RADISH



HOARY CRESS



BLADDER CAMPION



MALLOW



VETCH



WILD CARROT



FIELD BINDWEED



ST. JOHN'S WORT



PLANTAIN



RAGWEED



CANADA THISTLE



BUCK BRUSH



ELDERBERRY



GOLDENROD



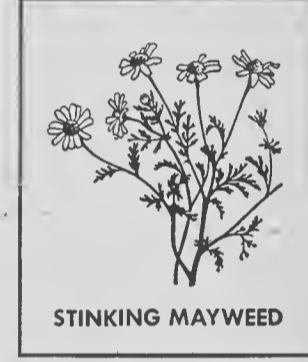
GREAT RAGWEED



DANDELION



WILD BUCKWHEAT



STINKING MAYWEED



WILLOW



SOW THISTLE



STINKWEED



SUMAC



SCOTCH THISTLE



MARSH ELDER

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Do-It-Yourself Pole Dairy Barn

Low-cost, efficient farm buildings, built with little or no skilled labor, are a boon to those who must cut overhead

by C. V. FAULKNOR

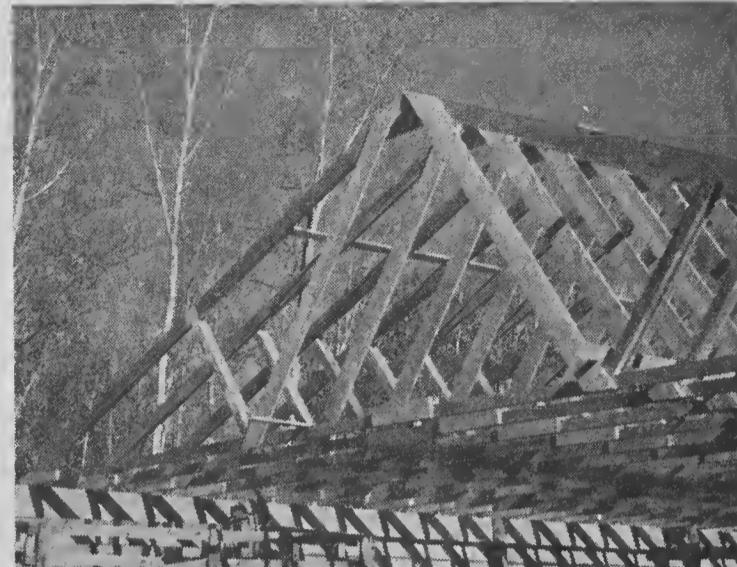
FARMERS are the original do-it-yourself fans by necessity, if not by choice. For years they've had to take up the tools of some specialized trade and do a job their town or city cousins would have someone else do. Today, labor shortages and increased costs have made this even more necessary than it was before. On the credit side, however, science and industry have come up with new methods and materials which make most jobs quicker and easier to perform.

When Army veteran Fritz Martens of Haynes, Alberta, decided to take up new land under the Veterans' Land Act, he sought the advice of Veterans' Department experts on how to get the most from his farm with a minimum of labor and cost. They told him of recent advances in farm planning and management, including the growing popularity of low-cost utility buildings which can be put up by a farmer and a few of his neighbors, without the need of specialized help.

Fritz decided on a pole-type barn, with plywood sheathing and a trussed roof. During the building of the structure, a day was set aside as a field



The poles and sidewall sheathing are now completed, and the last of the trusses is being hoisted into position.



The roof trusses, now ready for the roofing to be added, can be built on a jig with practice in about eight minutes each.

day to demonstrate this type of construction to farmers in the district. Agricultural engineers from the V.L.A. and the Alberta Department of Agriculture explained various aspects of the work, such as building those all-important roof trusses.

A jig for making these is built on the ground at the barn site. This consists of a few lengths of heavy lumber (to act as a floor) staked out in the shape of the truss. Pieces that will form the trusses are pre-cut and stacked near the jig, then laid in place as each form is made. They are first glued, then nailed together. Although the glue takes eight hours

to dry, the nails allow the truss to be removed from the jig immediately, so a new one can be fitted in. With practice, a truss can be made in about eight minutes.

After the glue has set, it would be possible to pull the nails out without weakening the truss at all. The nails are used only to bind the form until the glue hardens. To demonstrate this point, tractors were hitched to two pieces of wood which had been glued together the day before. As the tractors strained against each other, one of the pieces of wood snapped, but the glued joint held firm.

THE finished building measured 36 by 60 feet, and will house about 30 head of cows. Height from the ground to each cross member is 11 feet. Thirty-two trusses, in all, were used in the roof, and the structure is supported by ten creosoted poles, sunk about five feet in the ground, on

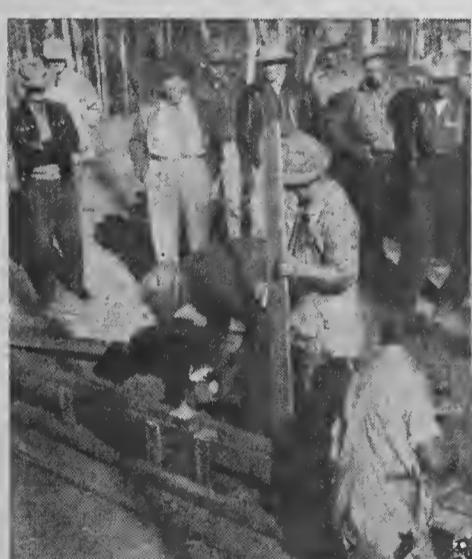
cement footings. Nine smaller poles were used to reinforce the creosoted planking that forms the splash boards. An interesting feature of the latter is a sloping top which will prevent manure accumulation.

Another time and money saver is the fact that no scaffolding is needed in this type of building. Roof trusses were raised in place by that versatile equipment, the front-end loader; and the stock rack on Fritz's truck also formed a handy movable platform for other jobs inside and outside the structure.

By recruiting volunteer labor among themselves, farmers can put up buildings of this type in one week, at a cost of about 70 cents a square foot. It's an economical way for the small operator to bring production line methods to his farm—something he must eventually do if he is going to remain on the land. V



Fritz and a friend place one of the main poles of the barn in position.



The glued trusses are made in a jig set up in the yard beside the barn.



A pole barn takes shape at the Fritz Martens farm, Haynes, Alberta, during a demonstration by V.L.A. and Alberta Department of Agriculture experts.

How N.S. Turkey Farm Was Developed

by D. I. SCOTNEY

MRS. MAJOR SPENCER of North Middleton, Nova Scotia, found a nest of turkey eggs while she was picking blackberries. As it was in a neighbor's field she took them to her neighbor, who then gave her five of the baby birds when they hatched. With this for a start, the Spencers decided to raise turkeys. They imported birds from Ontario and Alberta, and soon had a flock with which to begin their project.

Now the Spencers consider a flock to be anywhere from 1,000 to 1,200 birds. In 1951, they started with a flock of 1,200, but as help was scarce at the beginning of the next season, they did not raise quite so many birds. Their flock consists of about half-and-half gobblers and hens. The toms weigh about 35 pounds each when they go to the block, and the hens weigh between 10 and 20 pounds. The biggest turkey raised on the farm weighed 44 pounds.

These turkey fans estimate that it costs around \$40 a day to raise a flock

of 1,200 turkeys. From April to October they feed principally barley and oats grown on the farm. The Spencers have now purchased an adjoining vacant farm of around 40 acres, which is used for green feed and range for the turkeys. From October to killing time in December the birds thrive on expensive scratch and other feeds.

The big kill starts about December 10, when about ten extra helpers are employed. Turkeys are marketed on the Halifax and other Maritime markets. The Spencers also supply for a large number of suppers held locally.

Turkeys are mostly Broad Breasted Bronze, which enjoy a wide reputation on the poultry market. The Spencers have also imported some of the Nebraska breed from Nebraska. This breed, though quite widely known, is as yet quite uncommon in Nova Scotia.

Seldom has one of the birds been lost. Jackie, a specially trained watch dog took over. He not only stands guard over them, but is also a friend of the family, and especially of the Spencers' young son, Earl. V

Guide photos

Under the Peace Tower

by HUGH BOYD

IN the federal election campaign now raging, the four contending parties are taking issue with one another on a great variety of public questions. But there is one on which they will presumably present a united front to the end, judging from their performance a few weeks ago in the House of Commons, when the matter came up for debate. And this is serious, because the piece of legislation that had the eager support of all parties in Parliament has been hotly assailed outside its walls. This sort of thing doesn't happen very often.

The measure referred to is the amendment to the Agricultural Products Marketing Act, the object of which will no doubt be familiar enough already to readers of *The Country Guide*. What it really does is to tidy up the federal statute of 1949, recently questioned in some of its aspects by the Supreme Court of Canada. It is the latest of a series of attempts, dating back to 1934, to provide marketing machinery for farmers' groups.

The story has been so strewn with constitutional hassles as to point up the difficulties in making any major changes in affairs that affect a great many Canadians. It has taken 23 years to devise a set of marketing laws, partly under the authority of Parliament and partly of the provincial legislatures, that seems at last to be free of the risk of being found ultra vires of one jurisdiction or the other.

To laymen, the task didn't seem extraordinarily difficult, once it was agreed that marketing boards should be under provincial control and that Parliament should delegate to the provinces its own powers in the fields of interprovincial and export trade. But it has proved to be anything but simple. Now however, the matter may be finally settled, and the constitutional lawyers can find something else on which to exercise their talents.

THE debate in the commons on the amendment was not lengthy. Mr. Gardiner had to do little more than remark that it was recommended by the Canadian Federation of Agriculture. The CFA, perhaps because it has been studiously careful to avoid political entanglements, enjoys a considerable prestige on Parliament Hill. At any rate Mr. Diefenbaker was quick to follow with his blessing, not overlooking the opportunity to point out that a Conservative government laid the foundations for producer-controlled marketing in the first place. The CCF, in the words of Mr. H. W. Herridge of Kootenay West, "wholeheartedly supported" the measure. The Social Credit group likewise endorsed it.

But outside the House there was a mixed reception. Among the critics were the Canadian Association of Consumers, who feared a plot by farmers to hoist prices to intolerable levels, and certain newspapers dotted



across Canada, which were certain that farmers were being sold into bondage. This latter point of view may be summed up in the heading of the leading editorial appearing in a Toronto newspaper: "Yeomen or Peasants."

Well, the amendment providing provincial boards with the powers to collect fees and levies for equalization of returns to growers is now on the statute books. What follows will depend on the good sense of those who operate, or seek to set up, schemes for the marketing of farm products. What the critics seem to have overlooked is the fact that the provincial legislatures and Parliament retain the ultimate control and can be expected to be conscious of the rights of every section of the community.

It isn't going to make an election issue, at any rate.

THE chief interest hereabouts, at this early stage of the campaign, is just how much success Mr. Diefenbaker will have in his declared objective to restore the two-party system. This is really the most significant aspect of the present election. There are no sensational issues, unless anyone is disposed to take seriously the opposition claim that parliamentary liberties have been destroyed. What is more to the point is that the people should always have before them an alternative to the ruling party. With three opposition parties fighting one another as vigorously as they do the Liberal government at Ottawa, this is hardly the case. Under such circumstances, the Liberals seem almost assured of holding office forever.

Were the Conservatives to lose the election and yet succeed in greatly weakening both Social Credit and the CCF, they would indeed have done much to restore the two-party system in federal politics. The process, as far as the West is concerned, would likely be of more direct benefit to the Liberals than to the Conservatives. But the latter would be in a much better position to make an all-out bid for power four years hence.

What is actually going to happen, of course, is anyone's guess. V

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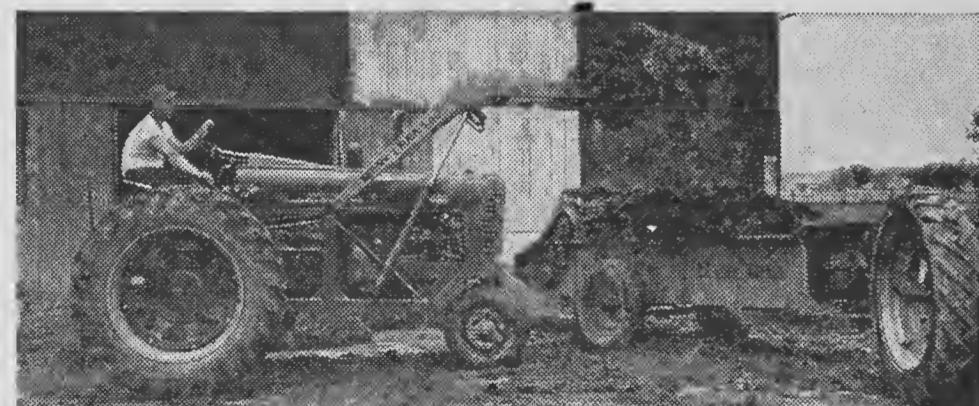
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Magic words—"Make Mine Morrill"—spoken so often that the marvelous HayMaster is now the fastest selling wheel rake in the U.S., Canada and Mexico. It's got everything you want:

Automatic operation at all speeds... right and left turns... free-floating action... and a total lack of gears, pulleys or power take-off. Minimum maintenance and repair. See Morrill early and choose from 3 great '57 models—2 trailer-type rakes and a 3-point hitch. Horsepower no problem. One demonstration and you'll say, "Make Mine Morrill, too!"

See Your Morrill Dealer or Write:

CALGARY FARM MACHINERY
505 Second St. E., Calgary, Alberta
KERN FARM EQUIPMENT
6th & Hamilton Sts., Regina, Saskatchewan
EQUIPMENT DISTRIBUTORS
125 Garry St., Winnipeg 1, Manitoba



The Canadian Sheep Breeders' Association has initiated a campaign to increase sheep production in Canada to at least 12 million head. The promotion program will be directed by the Association officers, President J. H. Willmott, Milton, Ont., Past President A. J. Strachan, Carman, Man., and Secretary W. H. J. Tisdale, Toronto, Ont. ✓

Wheatgrowers in Australia will have a levy imposed on them to help finance more wheat research. The Australian Government will contribute a pound, for each pound raised by the levy. The scheme is expected to result in greater efficiency of production and a higher quality product, thus enabling Australia to compete more effectively in world markets. ✓

The Ontario Department of Agriculture has increased its assistance rates for transporting limestone. Rail movements of limestone now will be aided by a grant covering 75 per cent of the freight cost, up to a maximum of \$2.50 per ton. On truck hauls from an approved quarry, the new rate is five cents per ton, per mile, up to a maximum of \$2 per ton. The increased rates are intended to encourage the greater use of limestone where it is most needed. ✓

Farm machinery tests will be made under field conditions in all parts of Saskatchewan this year. Farmers will be warned of any machines that prove to be unsuitable. The Government testing program was announced recently by the Saskatchewan Minister of Agriculture, the Hon. I. C. Nollet. ✓

Production per farm worker in the United States has increased markedly in the past 15 years. The 1954 Census of U.S. Agriculture shows that, in that year, one worker was producing sufficient farm products for nearly 20 people, compared with the productivity of one man for only 11 people in 1940. Between 1950 and 1954, the total number of farms in the U.S. declined 11 per cent from 5,379,250 to 4,783,021. Average size of farm in 1954 was 242.5 acres. ✓

Canada's 1956 honey crop of 24.3 million pounds was three per cent below the 1955 crop, and 23 per cent lower than the 1945-54 average, according to the D.B.S. However, the average yield per colony in 1956 of 74 pounds, was 7 per cent higher than in the 1945-54 period. ✓

A warning about plywood has been issued by C. A. Cheshire, extension engineer, Alberta Department of Agriculture. An "interior type" plywood has been entering southern Alberta and Saskatchewan from United States mills. This product is not made from waterproof glue and may come apart if exposed to weather, or wet conditions. It is recommended that farmers planning to use plywood out-of-doors, or where it is likely to get wet, should be sure to get Canadian fir plywood bearing the mark PMBC EXTERIOR. ✓

New Zealand will spend a million dollars for advertising in foreign markets, in an attempt to boost her butter sales. More than half the amount will be spent in Britain and the rest will be scattered in other potential market

areas. New Zealand's foreign sales have been dropping recently because of bilateral deals made by Denmark and other competitors. ✓

Consumption of red meats in Canada continues to increase. D.B.S. reports that per capita consumption in 1956 rose 2.7 pounds above the 1955 level, and 36 pounds above the 1935-39 average. Consumption per person during 1956, by kind of meat, is estimated to have been (1935-39 average in brackets): beef, 73.6 lbs. (54.7); veal, 8.9 lbs. (10.5); mutton and lamb, 2.7 lbs. (5.6); pork, 58.3 lbs. (39.8); offal, 5.7 lbs. (5.8); canned meats, 4.9 lbs. (1.7); total of all meats, 154.1 lbs. (118.1). ✓

South American countries have been hit hard by severe drought. In Argentina, principal crops affected are corn and late plantings of sunflower. Extreme dryness in some areas of Uruguay has reduced yields of all summer crops seriously. In Chile, a drought lasting since mid-November also has reduced farm production. In one province alone, 8,000 acres of wheat has been lost. Milk output in some regions has dropped 50 per cent or more. ✓

Graded bull purchase premiums have been reduced by the Saskatchewan Department of Agriculture from \$40 to \$35 on Grade A bulls, and from \$25 to \$20 on Grade B bulls. Reason for the reduction is that the Horned Cattle Trust Fund, from which payments are made, has been expended to a large extent. Under the new rates, money coming into the Fund will just meet payments being made under the Graded Bull Purchase Policy. ✓

In the sale of poultry meat, consumer convenience has been shown to be the major sales factor. A recent U.S.D.A. survey found that of the 4.3 billion pounds of poultry slaughtered in that country in 1955, about 88 per cent was turned out in ready-to-cook form. ✓

The smallest spring wheat plantings in 38 years of recorded estimates has been forecast by the U.S.D.A. The anticipated U.S. spring wheat acreage of 12.8 million acres is 21 per cent smaller than the 1956 figure, and 35 per cent below average. ✓

Charles A. Hayden, one of the influential figures in organizing Canadian agriculture, died recently at his home in Vernon, B.C. Mr. Hayden was instrumental in founding the B.C. Federation of Agriculture and the Canadian Federation of Agriculture. He also directed the setting up of the selling co-operative for B.C.'s orchard products — the B.C. Fruit Growers Association. ✓

The Hon. W. R. Chetwynd, B.C. Minister of Agriculture, died in a Victoria hospital after an illness of several weeks. Mr. Chetwynd, who was 66, was first elected to the B.C. Legislature in 1952, and in that same year, was appointed minister of railways, trade and industry, and fisheries. Last October he was relieved of the railway and trade and industry portfolios to become minister of agriculture and fisheries. ✓



METHOXONE MCP Weed Killer

Also Available
CHIPMAN
2,4-D
for WHEAT
and BARLEY

Tests show that on 160 acres of Oats, METHOXONE increases yields 15 bu. per acre... total cost \$60, extra profit over \$2,000. On 160 acres of Flax, yield increase of 5 bu. is common... total cost \$55, extra profit over \$3,000. Also excellent for killing weeds in early stages of Wheat and Barley.

TREAT EARLY to get these Results!
CHIPMAN CHEMICALS LIMITED

Montreal • Hamilton • Winnipeg • Saskatoon • Edmonton

CHIPMAN

Agricultural Chemicals

LIBERAL POLICIES

are proving to be sound for

WESTERN FARMERS

Canadian grain exports are being well maintained . . . in spite of subsidized production of importing countries, and the "give-away" programme of the United States, and without the drastic reduction in price that occurred in 1930.

With higher than average exports, and a growing home market, WESTERN FARMERS, as well as farmers in other parts of Canada, can look to the future with confidence.

WESTERN WHEAT GROWERS have been favoured with a series of good crops, and have produced within the last 5 years as

much wheat as was produced in the previous 7 years. For the first 9 months of 1956, the income from the sale of grain, in the three Western Provinces, was \$526 million, as compared to \$374 million in 1955.

Sales by the Canadian Wheat Board, and marketings by producers, continue to show an impressive record: (thousand bushels)

Crop Year	EXPORTS		MARKETINGS BY PRODUCERS	
	Wheat	All Grain	Wheat	All Grain
1955/56	308,667	401,600	353,400	567,300
1954/55	251,909	366,904	319,857	524,009
1953/54	255,081	437,832	396,961	608,336
10-year average:				
1943-53	290,443	381,780	347,198	558,172
1933-43	194,475	227,847	262,096	338,398

THE LIBERAL GOVERNMENT has continued to press the sale of Canadian wheat in every available market and has entered into trade arrangements with other countries and assisted in making financial arrangements.

THE LIBERAL GOVERNMENT extended a most favoured nation's tariff treatment to Japan and Russia. Japan is now Canada's third best wheat customer, and is also buying large quantities of barley. Negotiations are complete for Russia to purchase for cash 45 million bushels of Canadian wheat over a three-year period. Spe-

cial arrangements were made a year ago to finance the sale of some 30 million bushels of wheat to Poland, Czechoslovakia and Hungary. Poland has also recently negotiated for the purchase of a further 11 million bushels in the coming crop year, and for at least half as much in the next crop year.

Canada continues to be a member of the International Wheat Agreement, and the present Liberal Government has extended the life of the Canadian Wheat Board for a further five-year period, as the sole marketing agency for wheat, oats and barley.

Here are some of the Results of Liberal Farm Policies

The Crow's Nest Pass rates have been maintained.

RECORD SHIPMENTS OF WHEAT are passing through the Port of Churchill — 16½ million bushels in 1956 — at a premium of 11¢ per bushel over lakehead prices. Storage facilities at Churchill have been increased by 5 million bushels.

FREIGHT ASSISTANCE continues to be paid on feed grain shipped to Eastern Canada and B.C. This amounted to \$17 million in 1956 and will be further increased by the Amendments of 1957.

Storage is being paid on above-normal carry-overs of wheat amounting to \$31 million in 1956.

Guaranteed loans on farm-stored grain have been increased from \$1,500. to \$3,000.

Farmers may now seed land to soil improvement crops without affecting their delivery quotas.

P.F.A.A. AMENDMENTS OF 1957 provide for more generous payments in crop failure areas without increasing the 1% premium levy. Compensation for flood damage has also been made more generous. The cost to the Canadian taxpayer has been \$88 million.

Under the P.F.R. Act over 50 thousand large and small water developments have been undertaken, and over one-and-a-half million acres made into community pastures, with hundreds of people being moved to better land. The cost to the Canadian taxpayer has been nearly \$100 million.

The Canada Farm Loans Board Act was amended in 1956 to increase the amount that may be loaned on a first mortgage to 65% of appraised value up to \$15,000, and repayment extended over 25 years.

MORE THAN 595,000 FARMERS have borrowed over \$650 million under the Farm Improvement Loans Act at 5% interest.

Under the **LIBERAL GOVERNMENT COOPERATIVE MARKETING ACT**, 137 marketing schemes have been set up, with the Government guaranteeing the initial price up to 80% of the previous 3 years.

Under the **AGRICULTURAL PRICES SUPPORT BOARD**, another Liberal measure, over \$350 million has been used to stabilize the prices of agricultural products including potatoes, apples, beans, honey,

dried skimmed milk, cheese, butter, eggs, fowl, hogs and cattle. This measure guarantees a floor price of 58¢ a lb. for butter, 23¢ a lb. on hogs, 38¢ a doz. on eggs and now 17¢ a lb. on certain powdered milk. A bonus of \$2.00 and \$1.00 continues to be paid on "A" and "B" grade hogs, amounting to \$6 million a year.

Grants to one-third of the cost were paid on new cold-storage plants, as well as on the construction of new buildings at Agricultural Fairs. The Liberal Party has continued to expand the usefulness of the Experimental Farm system, and the activities of the Rust Research Laboratory. It has continued to reduce the tariffs on a long list of items used by farmers.

THE LIBERAL PARTY has consistently sought new markets and the expansion of old markets. It has likewise refused to adopt a "fire-sale—give-away" policy, but at the same time has not hesitated to use the taxpayers' money to maintain a reasonably stable home market for farm products, and in the financing of wheat to other countries short of Canadian dollars.

For Sound Agricultural Policies

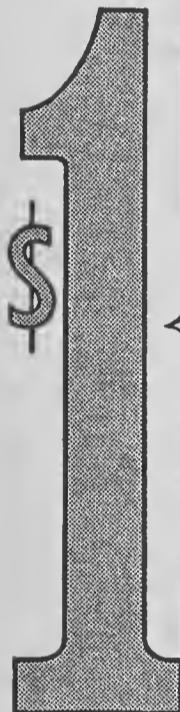
VOTE LIBERAL

DAIRY FARMERS!

*Support the June Set-Aside for
ADVERTISING and PROMOTION
to Increase Your Product Sales*



HERE'S HOW
THE 1956 JUNE
SET-ASIDE
DOLLAR IS
BEING SPENT
IN 1957



ADVERTISING & PROMOTION 81.2¢

Daily Newspapers	25.1¢
Weekly Newspapers	6.1¢
Magazines	17.5¢
Trade Journals	5.8¢
Farm Journals	4.1¢
Radio	7.0¢
Merchandising Services	7.6¢
Consumer Services	8.0¢

ADMINISTRATION & MEETINGS 11.7¢

SET-ASIDE PROMOTION . . . 3.6¢

QUEBEC ADMINISTRATION . . 2.4¢

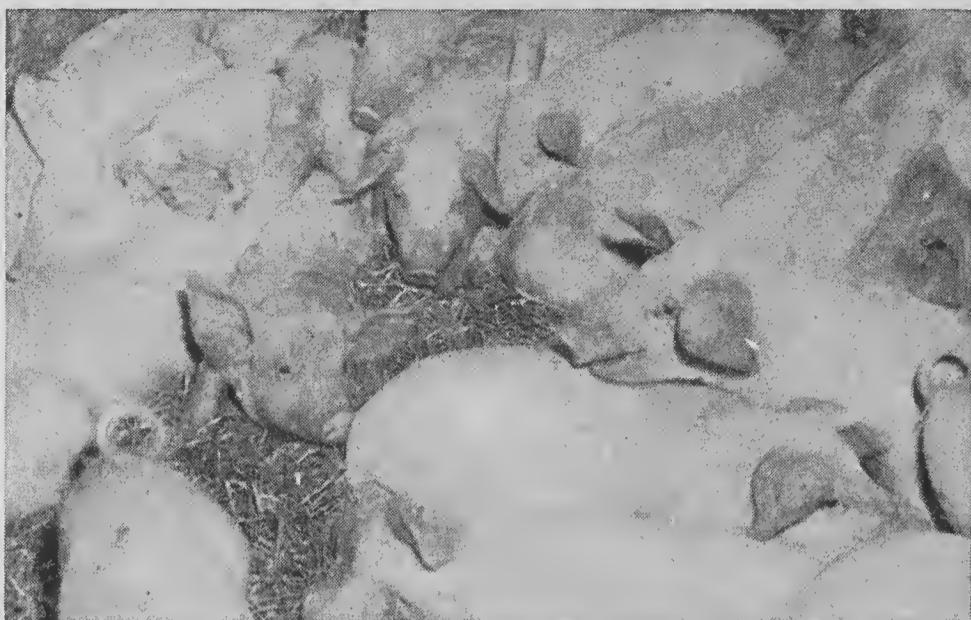
EDUCATION & RESEARCH . . 1.1¢

In the six years since the beginning of your advertising and sales promotion program, sales of dairy foods have shown steady gains. Continued expansion of markets for your products depends on your continued support of the June Set-Aside. And 100% collection —every dairy farmer contributing, every plant operator collecting on behalf of his patrons—would increase the effectiveness of each dollar contributed.



DAIRY FARMERS OF CANADA
409 HURON STREET, TORONTO, ONT.

LIVESTOCK



[George W. James photo]
Newly weaned pigs need two pounds of skim or buttermilk for each pound of grain fed, or ten per cent meat meal, or mixed concentrate, in the ration.

Guide to Better Breeding

PERFORMANCE testing of beef cattle for the selection of superior breeding stock is a live topic these days. One of the latest to release some results is the Brandon Experimental Farm, Manitoba, where ten bull calves from two sires completed individual performance tests in 1956.

The tests began when the calves were 154 days of age, and continued until they reached 800 pounds. They gained an average of 472 pounds, but the individual rates of gain varied from 1.70 to 2.19 pounds per day. Feed requirements per pound of gain varied from 6.41 to 7.91 pounds, and in general the faster gaining calves were more economical in the use of feed.

One thing these figures show is that there is considerable variation in rate of gain and feed requirements of calves fed in controlled tests. Rate of gain and feed efficiency are said to be highly heritable, so selection on the basis of these performances should be successful. Type, strength of bone and breed character should also be considered in selecting herd sires according to the Brandon report. V

Silage in The Hog Ration

DOES it pay to add grass silage to the ration of growing market hogs? It makes so little difference that it's not worth it, according to Camille Bernard, who has tested 107 hogs during a three-year period at the Lennoxville Experimental Farm, Quebec.

The rations included oats, 20 pounds; barley, 50; bran, 10; ground hay, 10; protein supplement, 10; cod liver oil, 1; and mineral mixture, 3 pounds. These were varied with the addition of grass silage at 0, 10, 20, and 30 per cent. The silage was chopped fine and mixed with the meal, and this was self-fed from the start of the experiment until the pigs were marketed. The initial weights of pigs varied from 80 to 120 pounds.

The average daily gains were 1.25 pounds for pigs without silage, 1.23 for those with 10 per cent silage, 1.20 with 20 per cent, and 1.15 with 30

per cent. The initial weight of the pigs did not appear to affect their growth rate.

It must not be concluded from this that pigs gain better without silage, because the figures given are average ones, and some of the pigs on 30 per cent silage did as well as some without any. Carcass scores were much the same in all groups, averaging from 63 to 67.

One difference worth mentioning is the feed consumption per pound of gain. Those without silage consumed 5.21 pounds of meal per pound of gain, those on 10 per cent silage consumed 4.83 pounds, the 20 per cent group 5.42, and the 30 per cent group 4.95. On the average, pigs receiving silage made more efficient use of their meal by about 3 per cent, but this varied from year to year. Dr. Bernard says that these differences were not sufficient to recommend grass silage for market pigs. V

High Roughage Finishing for Yearlings

BEEF men in cheap-roughage, expensive-grain areas like eastern Ontario, Quebec and the Maritimes have built their programs in the past, on selling two-year-old fattened steers, because this age of cattle will take on finish with little grain. But two years is a long wait to cash in a calf crop, so the Central Experimental Farm is looking for ways to get steers up to market finish as yearlings on high-roughage rations.

P. E. Sylvestre, senior animal husbandman, says it looks as though that goal can be reached. He has demonstrated that yearlings can be finished with little grain, but the program calls for well-bred cattle, and a careful farming program.

"Carrying capacity of the pasture can be almost doubled by proper fertilization," he says. "Individual gains of 350-400 pounds during one summer season have not been uncommon in our work."

"A good aftermath is worth more than ordinary pasture too," he reports. "In fact, heavy steers on aftermath made as high gains and graded as well as steers on regular pasture bolstered by 5½ pounds of grain per head daily for 45 days." After year-

Here's Where You Separate
the Men from the Boys . . .

Behind the Big-Capacity

JOHN DEERE 14-T BALER



OVER AND OVER, the John Deere 14-T Twine-Tie Baler pops out bales to a smooth, steady, profit-making rhythm. It takes a good man to keep up with the "balingest baler" in average hay . . . two men have their hands full in heavy crops.

Don't expect the delays, breakdowns, and slowdowns you've had to put up with behind an ordinary baler. The John Deere 14-T keeps you humping—gets the crop under cover at the peak of its feeding value. It's built to handle every crop in every condition and stay on the job.

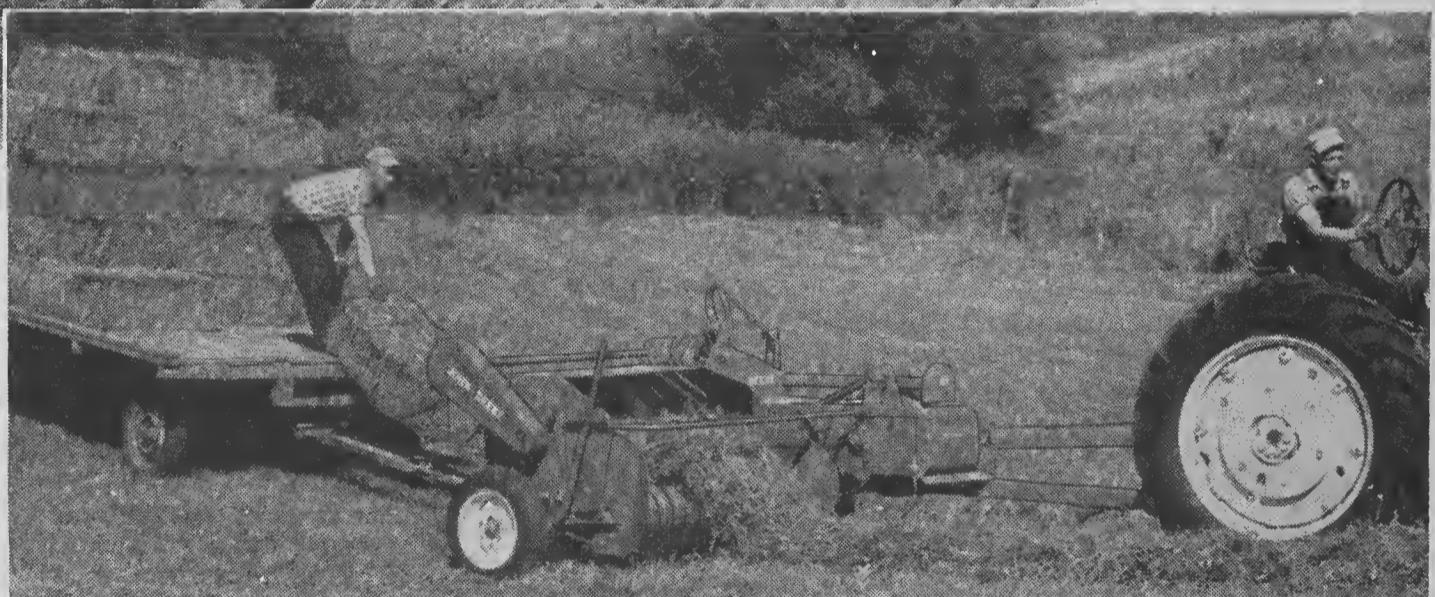
Makes Better Bales

Another thing, you'll be handling bales, not semi-bundles. You keep working because the 14-T's bales are easier to handle, feed, and stack. Even with rough handling, these compact, square-cornered bales stay tied, since twine is snuggled into grooves in the bales to reduce snagging and slipping.

No, sir, if you're planning on loafing your way through long, dragged-out hay seasons ahead, don't buy a John Deere 14-T Baler. The "balingest baler"—the big-capacity 14-T Baler—soon separates the men from the boys.

Invite your John Deere dealer to see you demonstrate on your own hayrack. You bring the man . . . he'll bring the baler.

Right now, mail the coupon for free literature.



Here's the John Deere 14-T Twine-Tie at work in the field. Its simple design is the key to its big-capacity performance.

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Calgary, Regina, Hamilton, Winnipeg

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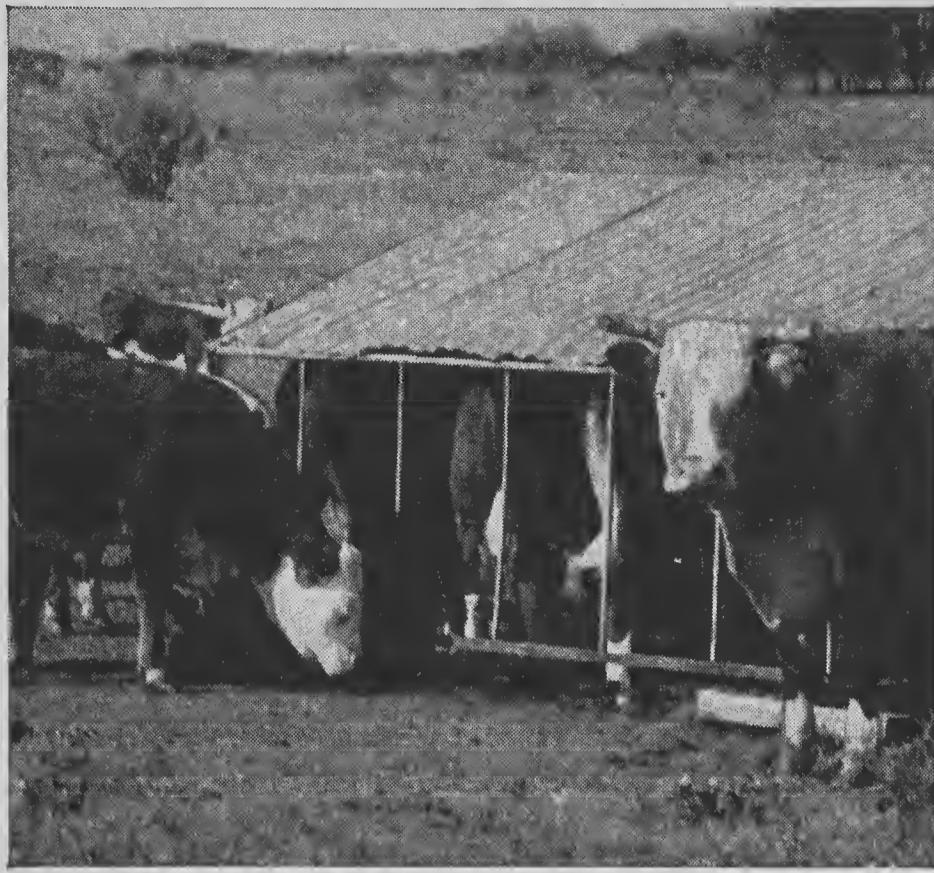
Province _____



JOHN DEERE

"WHEREVER CROPS GROW, THERE'S A GROWING DEMAND
FOR JOHN DEERE FARM EQUIPMENT"

LIVESTOCK



**37.4% increase in gain
26.5% improvement
in feed efficiency**
proved in test just completed with
AUREOMYCIN in calf creep feeds

The trend is more and more toward creep feeding beef calves!

Today, cattle feeders in all sections of the country have more reason than ever before for adopting creep feeding as a regular feature of their cattle feeding programs.

A test just completed tells you why. Look at the table below. Note the exceptional money-making results achieved with AUREOMYCIN in creep feeds. Other trials, nearing completion, also show dramatic results in providing thrifty gains!

It will pay every cattle feeder to look closely at this new development. Talk to your feed manufacturer or feed dealer about creep feeding. He can supply you with creep feeds that contain sufficient AUREOMYCIN to provide your beef calves with the recommended 70 milligrams of AUREOMYCIN Chlortetracycline per head per day. Start now to get thrifty gains with creep feeds containing AUREOMYCIN!

For further information write NORTH AMERICAN CYANAMID, LTD., FARM AND HOME DIVISION, 5550 Royalmount Avenue, Town of Mount Royal, Montreal, P. Q., or N. D. HOGG, LTD., Box 66, Station Q, Toronto, Ontario.

**Results with AUREOMYCIN
in Creep Feed Experiment**

	WITHOUT AUREOMYCIN	WITH AUREOMYCIN†
Number of calves		
Days creep fed	50	97
Average initial weight, lbs. "in"	112	113
Average finishing weight, lbs.	218.8	251.0
Average daily gain, lbs.	382.0	475.3
Percentage increase in gain	1.46	1.98
Lbs. creep feed per lb. gain	37.4%	
Percentage improvement in creep feed efficiency	2.34	1.72
		26.5%

†Creep Feed contained sufficient AUREOMYCIN to provide 70 milligrams of AUREOMYCIN Chlortetracycline per head per day.

*Trademark

CYANAMID

AUREOMYCIN®
CHLORTETRACYCLINE

for thrifty gains in beef cattle



lings have been on good aftermath, or have been eating annual crops, they must go into dry-lot earlier to avoid the usual setback from eating over-mature and frozen grass, his work shows.

Finally, grain can be fed to advantage in the latter part of the grazing season, too. At Ottawa, well-grown yearling steers on permanent pasture were fed grain from mid-August to mid-October, and one-third of them were sold off pasture with satisfactory finish. A comparable group fed no grain on pasture required 120 days of dry-lot feeding to reach the same finish. In fact, the group getting grain on pasture required less grain, altogether, and much less hay and silage. □

**Mineral Needs
In Pasture Feeding**

CATTLE and sheep usually have minerals in their winter rations, but some of them may need minerals when they are on pasture too. Once past the suckling stage, the normal minerals required are salt, calcium, phosphorus and iodine, with the addition of cobalt, copper and manganese in certain areas.

You can get all these in most commercial mixes, but make sure that you buy them only on a "guaranteed analysis" basis. S. C. Stothers of the Department of Animal Science, University of Manitoba, warns that feeders can be misled by so-called "mineral specials," which are often expensive and contain a long list of lesser-known minerals and compounds which are not needed.

He says that you can save money by preparing your own mineral mix. In Manitoba, except on the high lime soils, this should include equal parts by weight of limestone, bonemeal and iodized cobalt salt. On high lime soils mix two parts of bonemeal and one part "blue" salt. If livestock are on a heavy grain ration, you can use a cheaper mix of two parts limestone to one part "blue" salt. □

**Cost of
Hundredweight of Milk**

SEE that you get high milk production per cow, and the income will take care of itself. That, more or less, is what Alberta's supervisor of dairy cattle improvement, R. P. Dixon, is saying.

He quotes a study made among herds in the Edmonton district, which showed that with an average production per cow of less than 6,000 pounds of milk, the cost per hundredweight of milk was \$6.31. When the average production was over 10,000 pounds per cow, the milk cost only \$3.27 per hundredweight. These results have been confirmed by similar studies in Ontario and Illinois.

Dixon says that the first essential is the right kind of cow, and then to feed and manage her to bring out the best of her inherited milk production. To help Alberta dairy farmers, the provincial department of agriculture provides a cow testing service primarily for grade herd owners. The herd owner takes daily or monthly milk weights, depending on which

plan is selected, and a butterfat test for each cow is taken monthly. On the basis of these figures, the profitability of each cow can be evaluated. □

**Don't Let
Insects Rob You**

THE stockman who is not prepared to put some effort into insect control is missing an opportunity to save money and protect his livestock business, according to E. E. Brockelbank, director of the Animal Industry Branch, Saskatchewan Department of Agriculture. He claims that most of the heavy losses, in the form of impaired flesh and milk production, and through broken fences, can be prevented by controlling bloodsucking insects such as ticks and horn flies. □

Insecticides are one answer to the problem, and the lists of recommended ones are available from departments of agriculture. Mr. Brockelbank strongly recommends a check of animals kept outside, especially in hot weather, and the use of repellents and cool, dry housing on very hot days as aids to control. □

**Pass the Salt
—Your Hogs Need It**

TOO many hog men are feeding a good ration, such as a balance of grains, proteins, vitamins and antibiotics, but are forgetting salt, according to L. J. Kortan, assistant extension animal husbandryman at South Dakota State College.

Pigs were fed identical rations, except for salt, and it was found that the salt-fed pigs averaged 228 pounds, while the group without salt averaged only 125 pounds. For each pound of salt eaten, there was 45 pounds of gain.

He recommends that pigs be offered salt free-choice, saying that they will eat .12 to .3 ounce per head daily, depending on their ration. Pigs that have not been fed salt for a considerable time should be given smaller amounts at first to avoid digestive upsets.

When mixing salt, add one-quarter of a pound to 100 pounds of grain and protein supplement. But if salt is included in a mixture of protein supplements, add two to three pounds to each 100 pounds of feed. □

**More Wool
And Better**

HORMONES may be a cheap and simple way to increase wool yields. They are being tried at Lincoln College, New Zealand, on 1,500 Romney, Romney cross and Corriedale ewes. This treatment looks promising, because the tests with hormones have produced an average of 13.5 per cent more wool, or an increase of about one pound on an eight-pound fleece. The wool was generally of finer quality too.

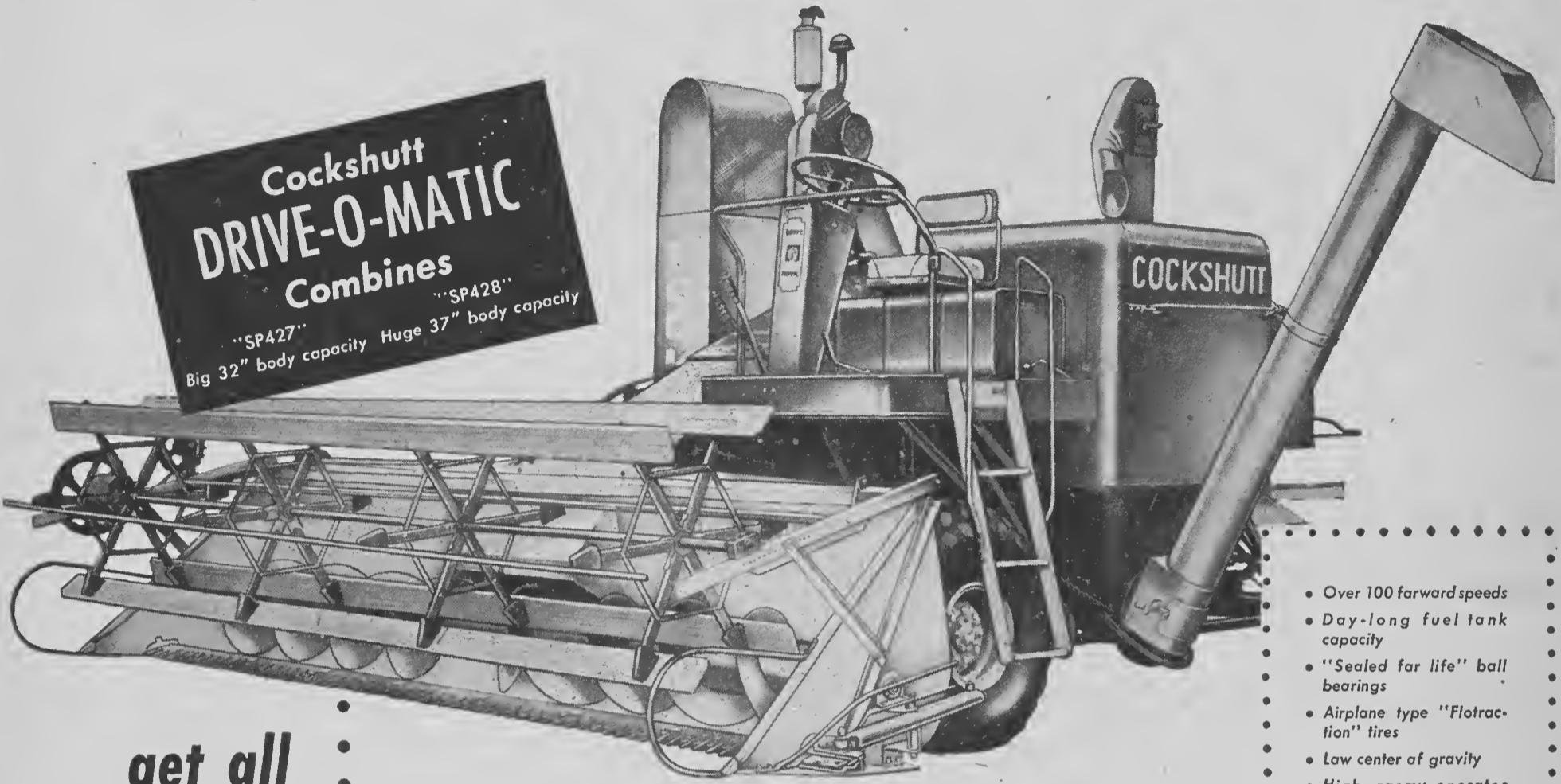
A hormone substance called "L-Thyroxine" was chosen for the tests, as the most suitable of the commercial preparations available. The cost was estimated at about 30 cents per sheep, and even less if the hormone could be mass-produced. □

Look to

Cockshutt

for record breaking performance

Cockshutt
DRIVE-O-MATIC
Combines
"SP427" "SP428"
Big 32" body capacity Huge 37" body capacity



get all
the grain
your fields
can deliver

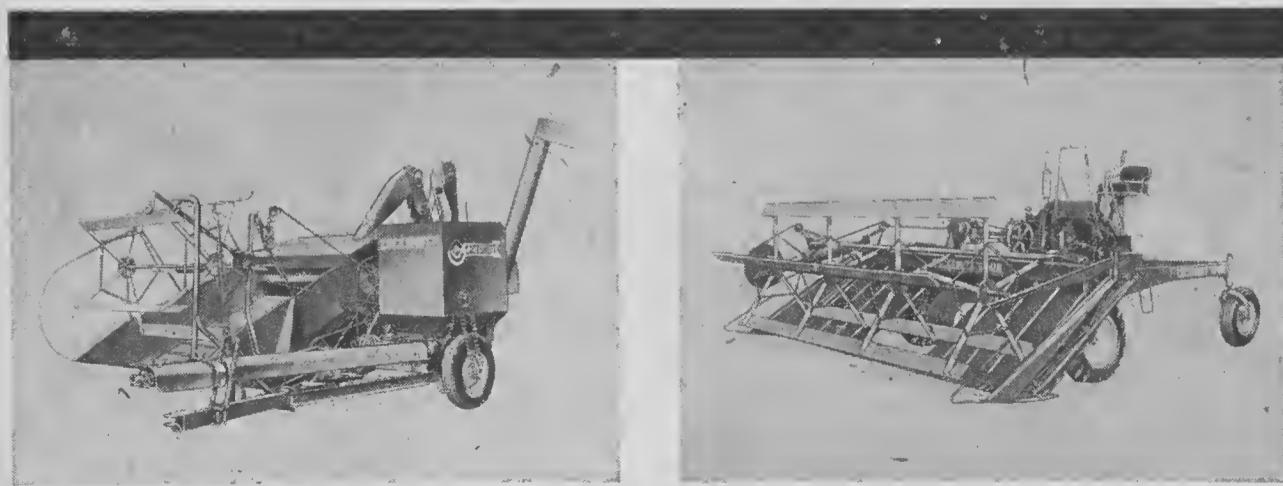
Cockshutt Drive-O-Matic Combines and unequalled grain saving performance go hand-in-hand. Superior control eliminates overloading, underloading, plugging...no matter how tangled or heavy the crop. Big threshing, separating and cleaning units deliver extra bushels from every crop.

And the Cockshutt Drive-O-Matic is so easy to operate. You sit high...up out of the dust zone. With over 100 speeds at the touch of your toe, effortless

steering, big comfortable seat and bump cushioning low pressure tires, you'll operate your Cockshutt Drive-O-Matic with practically the same ease as your automobile. You adjust cutting height quickly and simply (from 1 1/4" to 33") with a new hydraulic header lift.

See and try the great new Cockshutt Drive-O-Matic Combine...it's designed to outperform, outclass all others in threshing, separating, cleaning and saving grain.

- Over 100 forward speeds
- Day-long fuel tank capacity
- "Sealed for life" ball bearings
- Airplane type "Flotraction" tires
- Low center of gravity
- High, roomy operator platform
- Hydraulic header lift
- Stone trap protection
- Power saving live axle drive
- Optional Power steering



"422" Greatest of pull type combines

Biggest capacity in its class. 66" straight through body. 5610 square inches of separation area. 2960 square inches of cleaning area. Giant 4-riser straw rack. 26 bushel grain tank.

"SP419" New Self propelled swather

Speeds harvesting of all grain and grassland crops. Builds crisscross windrows that cure rapidly... are easy to pick up. 10', 12', 14', or 16' sizes. Hydraulic controls...TRIM steering... Spraying attachment.

Buy Canadian Buy Cockshutt

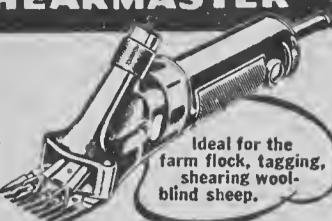
Cockshutt

Farm Equipment Ltd.

Brantford, Canada

SHEAR YOUR OWN SHEEP
Sunbeam
with STEWART famous
SHEARMASTER

MORE WOOL
MORE PROFITS
LESS LABOR


Ideal for the farm flock, tagging, shearing wool-blind sheep.

You make more money when you shear your own sheep—by machine. Hand-blades leave ridges—machine doesn't, so you get 10% more wool by machine and better price for it because of its longer fibre. Easy to learn to shear by machine and remove fleece from sheep in a few minutes. Save shearer's wages.

SHEARMASTER has powerful, ball-bearing, fan-cooled motor inside rugged Bakelite hand piece. Works from light socket 110-120 volts AC-DC. Built-in off-and-on switch. Professional type tension control. Includes long cord, extra comb and three extra cutters. Catalogue No. 31B-2. Has year round use for shearing the flock, tagging, crutching, removing wool from dead sheep, etc.

WRITE FOR BOOKLET "Tips on Shearing." 60 illustrations. Gives step by step, simple routine for shearing wool from sheep, leaving no wasteful ridges.

NOTE: Starting with Shearmaster powerful motor unit, you can add Clipmaster for clipping horses, dairy cows, dogs; Grooming Brush for cleaning farm animals better, faster. All heads are interchangeable by simply removing two screws.

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FIELD



The value of adding phosphorus to increase forage corn yields on heavily leached soils is shown by the two taller rows on the left of the picture.

Getting A Better Hay Crop

IT pays to apply commercial fertilizer to the hay crop, according to experiments by the Central Experimental Farm, Ottawa. It is also important to see that the right fertilizer is used, taking into consideration the nature of the soil, previous treatments, drainage, lime requirement, and what plant foods are available in the soil.

The tests were carried out during nine years on different soils in Carleton County, varying from sand to clay loam. One result was that nitrogen applied to oats decreased yields of the first-year legume hay on all soil types. Phosphorus increased the hay yield, particularly on the heavier soils. Potassium gave a slight increase in hay yield on all the soils except clay loam.

For grain alone, nitrogen should be applied in addition to phosphorus and potassium. But when grain is a nurse crop for legume hay, a relatively low level of nitrogen is needed, with the emphasis on phosphorus and potassium treatments.

Remember that hay is the cheapest source of feed nutrients for livestock during the non-grazing season. It pays to fertilize the hay crop. V

Weed Killers Must Be Watched

WEED killers are fine in the right place, but can cause a lot of grief when they get into the wrong ones, either by drifting sprays and dusts, or by giving off vapor fumes. The plants that are sensitive to 2,4-D and chemicals of that nature are tomatoes, sunflowers, soybeans, sugar beets, rapeseed, cauliflower, cabbage, Manitoba maple, and many ornamental trees and shrubs.

The Manitoba Weeds Commission recommends that you don't apply 2,4-D, MCP or other herbicides on a windy day. Evening and early morning are best because of low wind velocity and high humidity. In areas where there are sensitive crops, use a boom sprayer, not an airplane or dusting machine; use the amine or sodium

salt, which do not vaporize as the ester does; keep pressure low and not above 30 pounds; avoid using a sprayer contaminated with 2,4-D or similar chemicals, when you apply insecticides or other materials to sensitive plants.

If the sprayer is contaminated, clean with clean water, followed by soapy water, and rinse with clean water again. But be careful. V

Spring or Fall For Fertilizers?

WHETHER to fertilize in the fall or the spring depends on the crop and the kind of fertilizer, says Dr. C. F. Bentley of the University of Alberta. Because of the chemical reaction between phosphate and soil minerals, phosphate fertilizers for grain crops are best applied at seeding time. For hay and pasture fields, the same fertilizer should be applied as early in the spring as possible.

Nitrogen fertilizers, whether for grain on stubble lands, or hay and pasture crops, may be applied in the spring or fall, whichever is more convenient. On sulphur deficient soils, fertilizers supplying sulphur for legumes can also be applied in the spring or fall.

Ammonium phosphate (16-20-0) should be applied to hay and pasture only in the spring, owing to its phosphorus content. Ammonium nitrate, ammonium sulphate and anhydrous ammonia are nitrogen fertilizers and can be used either in the spring or fall. V

White Grubs Are Just Waiting

WHITE grubs are expected to be a serious problem in most of Ontario and the Upper Ottawa Valley in Quebec this year. There are plenty of them in the subsoil now, waiting for early summer, when they will feed on the roots of forestry plants, sod, grain, root crops, and flowering or ornamental plants.

If you didn't attempt to control them with chemicals in 1956, you will

probably have to do it this year, says G. H. Hammond of the Central Experimental Farm, Ottawa. Both chemical and cultural control should be carried out in early summer before any hoed crop is planted out.

For cultural control, use a double-disk twice, then plow not more than four inches deep, and finish up with two more diskings at right angles to the previous line. Chemical controls include DDT, BHC, aldrin, dieldrin, chlordane or heptachlor worked into the soil to a depth of several inches. In the case of permanent sod, apply the chemical to the surface as soon as you can, and water it if necessary. V

Wild Oats And Cultivation

THE wild oat menace is not becoming any less. No chemical control has been recommended in Canada yet, and the best practical method for the average farm is control by tillage and cropping, and by sowing seed free of wild oats. Retiring land to grass at regular intervals is the most effective permanent measure, but it is not always economically possible.

The Brandon Experimental Farm, Man., recommends tilling stubble land to induce growth of wild oats, which can be killed late in the spring before delayed seeding of grain. This was done in three successive years on the same plots by seeding barley on June 10, and the wild oats were almost eliminated, but barley yields were lower. When the barley was seeded on May 10 in three successive years, the amount of wild oats was nearly trebled.

Wild oats appear to germinate better the next spring if they are allowed to dry on the surface before being turned under, so fall tillage of infested stubble should not be hurried. It was also found at Brandon that a careful job of shallow plowing after harvest assured a more complete growth of wild oats than disk, if the plowed land was harrowed and packed early in the spring. V

Tobacco Soil Texture and Irrigation

HOW much water does tobacco need? Irrigation should be applied within the range of 0.4 to 0.7 inch per hour, according to E. K. Walker of the Delhi Tobacco Substation, Ontario.

He reports a comparison made of irrigation water at 0.3, 0.5 and 0.9 inch per hour over three years on medium-texture, fluecured tobacco soil, which gave similar returns per acre at each rate. Soil samples showed, however, that more water enters the soil at the rate of 0.5 inch per hour than at either of the other rates. Long exposure to evaporation at high temperatures may account for a greater loss of water at the low rate, and because much of the water stayed on the surface for a time at the higher rate, there would be a ready loss from evaporation in that case.

The satisfactory range for medium soil was judged to be 0.4 to 0.7, which can be increased by 0.1 inch per hour for light soils, and similarly decreased for the heavy tobacco soils. V

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FIELD

Potash In the Potatoes

TOO much potash in the fertilizer will reduce the solids in potatoes, causing them to become wet and soggy when they are cooked. The Fredericton Experimental Farm made 130 tests, which showed that the normal 6-12-12 formula at the recommended rate provided more potash than the crop needed under most conditions. The result was potatoes of inferior table quality.

Fredericton recommends a new formula for fertilizing potatoes. This reduces the amount of potash in the existing 6-12-12 formula by four per cent, which they reckon will give better potatoes without reducing yields. The new formula, 6-12-8, is now available. V

Sangaste Is a New Fall Rye

A LICENSE has been obtained by the Department of Plant Science, University of Alberta, for the fall rye variety Sangaste. This variety, developed over a long period of breeding in Estonia, was introduced from Europe and brought to the university by R. R. Berg in 1951.

Sangaste has a large attractive kernel, differing in this respect from the commonly grown, small-seeded variety Dakold. In four years of testing at Edmonton, it has consistently outyielded Dakold, and is approximately a week later than it. In all tests at Edmonton and also in tests in other areas, Sangaste has been consistently more winterhardy than other large-seeded, unlicensed varieties. While its winterhardiness appears to be satisfactory, it does not have quite the winterhardiness of Dakold.

Sangaste is stronger strawed than Dakold, even though it is taller. It produces an abundance of vegetative growth in fall and early spring, and consequently should be very well suited as a pasture crop. It is believed that this new variety will be well adapted to central Alberta.

Those interested in getting seed of this variety should apply to the Department of Plant Science, University of Alberta. V

Enemies of Farm Shelterbelts

SOME insects, and especially the fall canker worm, create havoc in farm shelterbelts. You have to watch closely, because the canker worm hatches when trees leaf out in the spring, but the damage is not obvious until they have grown and start to strip the leaves.

The advice from the Swift Current Experimental Farm, Sask., is to spray your trees as soon as possible after leafing out, using a mixture of two pounds of 50 per cent DDT powder in 80 gallons of water. You can get special PTO sprayer kits, but the equipment used for spraying cattle is also satisfactory. You may damage the trees if you use your field spraying equipment, because it may be contaminated with 2,4-D residue, and it is hard to wash this out. V

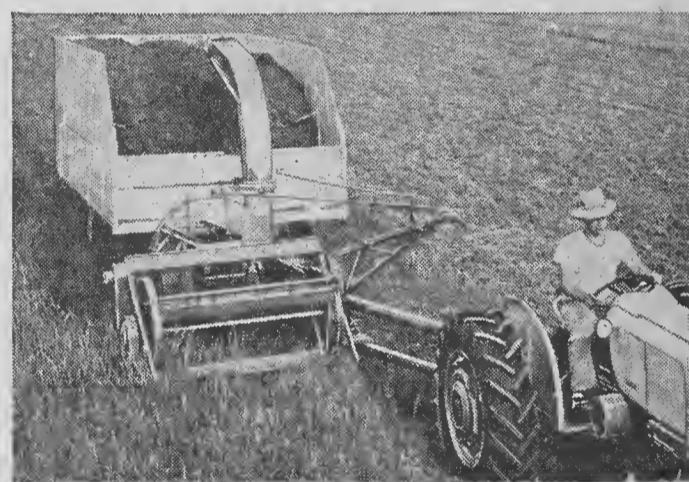


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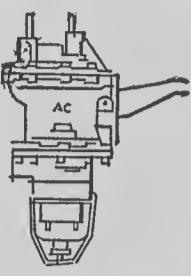
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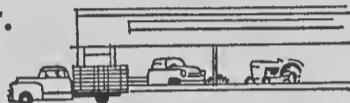


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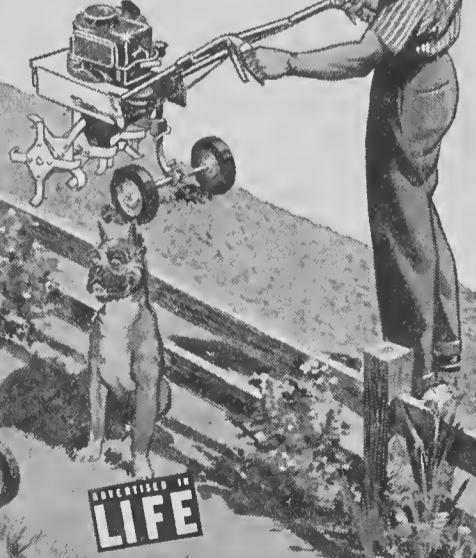
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HORTICULTURE

Cold Treatment For Early Tomatoes

HORTICULTURISTS at the Ontario Agricultural College now say that early tomato growers can boost yields of high-priced crops without spending an extra cent. Dr. H. Tiessen, Department of Horticulture, O.A.C., says that some growers have been using the cold technique without realizing just what they were doing.

The secret lies in germinating the seeds at 75° to 80° F. in a sterilized medium and, for the three weeks after the first two leaves develop, keeping night temperatures at 50° to 55° F. Plants should get as much sunlight as possible during the daytime, providing the night temperatures can be held down. After three weeks of the cold treatment, the plants go back to the recommended temperature of 60° to 65° F.

The use of this technique means, however, that the plants must be seeded ten to fourteen days earlier than otherwise; and the soil for the seedlings must be sterilized because of increased danger of "damping off."

The cold treatment produces shorter and stockier stems, with fewer leaves to the first flower cluster. This cluster, however, shows some 25 to 100 per cent more flowers, and eventually produces a heavier, early yield.

The heavier vegetative growth and the additional set of fruit also mean, according to Dr. Tiessen, that the plants should be fertilized at planting, with one-half pint per plant of a starter solution such as 10-52-17, dissolved at the rate of four pounds to 50 gallons of water. This will help the plants to become established quickly and support the increased number of flowers and fruit. □

Damage from Chemical Weed Sprays

SUBSTANTIAL injury is often done to horticultural plants and crops by the increasing use of selective chemical weed sprays, especially of the high volatile type such as 2,4-D and related compounds.

T. A. Sandercock, vegetable specialist, Manitoba Department of Horticulture, was chairman of a special committee set up more than a year ago by the Western Canadian Society for Horticulture, to study this matter. The committee reported that several states, including Arkansas, California, Idaho, Louisiana, Mississippi, Oregon and Texas have passed legislation restricting the use of the more volatile weed chemicals, because of the damage done to horticultural crops, primarily by the use of poorly adjusted and carelessly operated equipment. "No one has indicated," said Mr. Sandercock, "that 2,4-D cannot be used with complete safety near ornamental plants, provided due consideration is given to the formula used and the method of application."

The more widely chemicals are used for spraying commercial grain crops the more serious the damage to horticultural crops becomes. Much of the damage is windborne, and few people realize how far away the damage can occur from the place



The cold treatment Dr. Tiessen gives these tomatoes adds to early yields.

where a sprayer is actually operating. Custom spraying from airplanes, which is quite common in some areas, is also an important contributing factor.

Home gardeners themselves can cause a very considerable amount of damage to their own and their neighbors' flowers, shrubs and trees, by careless and thoughtless spraying of lawns. □

The Attractive Highbush Cranberry

E. L. EATON, horticulturist at the Experimental Farm, Kentville, Nova Scotia, believes that from blossom time in the spring, until the leaves drop in fall, the highbush cranberry, or Pembina (*Viburnum trilobum* Marsh) equals the best that money can buy for beauty.

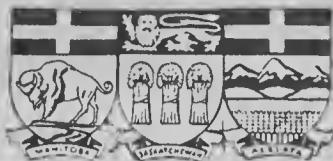
This hardy native shrub is easily propagated by hardwood cuttings, or by burying the lower branches. It can be planted in singly, or in groups, or even trained into miniature trees. The fruit resembles the true cranberry in taste, and is widely used in jelly and jam, but because native plants may vary in flavor, it is well to test the culinary quality first, if native shrubs are to be used. □

Red Apples

FULL-COLORED red apples find favor with consumers. Whether any other factors are involved, it is certainly true that if the average consumer is confronted with a good green, or golden apple and a good red one, he or she will almost invariably choose the red one.

At any rate, the Experimental Farm at Summerland, B.C., is planting a new, two-acre, red-strain apple orchard this spring, in which more than 60 red strains of apples will be included in a comprehensive test.

Dr. D. V. Fisher reports that many of our best known dessert apples such as Delicious, McIntosh, Winesap and others, have produced varying numbers of red named strains. Most of these strains appear to have developed as sports or mutations. "These sports," says Dr. Fisher, "usually are found as a small branch on a tree and develop from a single bud mutation." □



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More Eggs On Same Feed

BIGGER profits from eggs result from good management, and cost cutting where it does no harm. It should be remembered that feed accounts for 65 per cent of the cost of an egg, and that it is an obvious place to look for economies. It can't be done by limiting feed consumption, but by making sure that feed does not go to waste.

E. R. Hooey, district poultry inspector for the Canada Department of Agriculture in Manitoba, points out that a surprising amount of feed is wasted each day through carelessness, poorly constructed feed troughs, and wrongly located troughs, which cause the laying birds to scramble and fight for their feed.

While on the subject of feed, if egg production is high, the cost of feed per dozen eggs is lower. T. M. MacIntyre of the Nappan Experimental Farm, N.S., says that a flock laying at the rate of 60 per cent produces 15 dozen eggs per hen in a 300-day period. With eggs selling at 40 cents a dozen, the return is \$6. But if the flock was laying 70 per cent, the average production per hen would be worth \$7, or \$1,000 extra on a flock of 1,000 birds. That's not all. He has found that a five-pound hen, laying 180 eggs a year, requires about five pounds of feed per dozen eggs. A similar hen laying 200 eggs a year does it on about 4½ pounds of feed per dozen. This can save about \$350 a year on a 1,000-bird flock.

What You Spend on Turkeys

THE cost of producing a turkey for market is about \$3.80, according to the Saskatchewan Department of Agriculture. This includes 80 cents for the poult, 20 cents for brooding, \$1.40 for commercial feed, and the same for home-grown grain (valued at two cents a pound). This is without any charge for buildings, labor or equipment. For the beginner in the business, an economic unit is reckoned to be 200 to 250 poult.

The feed bill is the biggest item. To raise a turkey to 6 or 6½ months

of age requires 80 to 100 pounds of feed, including eight pounds of starter and 40 to 50 pounds each of grower and whole grain. Brooding equipment for 1,000 poult includes 24 four-foot feeders and 20 one-gallon waterers. One brooder stove is needed for every 200 to 250 poult, which require 500 square feet of space if brooded up to four weeks. Brooded to seven or eight weeks, they need 1,000 square feet.

When they're out on range, 1,000 turkeys need ten acres, occupying only a portion at a time. In shelters, they should have at least 15 inches of roost space each.

Feeding Before Laying

IT takes 21 weeks to raise a pullet from hatching to point of lay, but how much feed does it take? The Poultry Division of the Canada Department of Agriculture is interested in this question, and has set up a series of tests to find the answer. Three Experimental Farms carried out the tests, and here are the results: At Harrow, Ontario, 19.1 pounds of feed were needed; at Agassiz, B.C., 19.4 pounds, and at Morden, Manitoba, where it is somewhat colder, the figure was 20.4 pounds. The cost-conscious poultryman should take these figures into account when planning his operations.

Do Poultry Need Windows?

SOME poultrymen are switching to windowless poultry houses these days, and others are wondering what advantages and disadvantages there are with this type of house. Bert Reinhart of the Canada Department of Agriculture says that the windowless houses are much easier to build and to maintain. He has spoken to Ontario poultrymen who are convinced that they are the better type of house.

There are really no disadvantages, but there must be suitable ventilation, using an electric fan for forced draft, for example. More artificial lighting is needed in the windowless house, and there must be some means of controlling excessive heat in summer.

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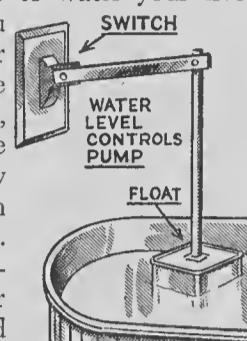
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WORKSHOP

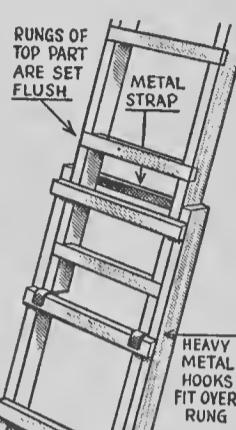
Selection of Useful Ideas for May

A little ingenuity, and not very much expense, make the daily chores easier

Automatic switch. If you are using an electric pump to water your livestock, and you want to do other jobs while the water is running, here is a device to stop the flow of water when the tank is full. You need a wall-type switch for your pump, and to this you fasten an arm with tape or a bolt (as illustrated). Then attach an upright float rod to the arm, with a float on the other end of it—a five-gallon oil drum or any other airtight container will do. When the water reaches a certain height it will trip the switch and cut off the motor, and when the cattle drink the water, the switch will be pulled down and more water will be pumped in. Be careful not to cause a short circuit while drilling a hole for the bolt in the switch, and all the joints must be secure so the cattle can't break them. You can encase the whole system in a wooden frame for added protection.—S.S.B., Sask. V



Home-made Extension Ladder. In two eight-foot sections, this ladder will extend to 13 feet. As the sketch shows, the top section is narrow enough to slide easily inside the bottom one. The two hooks, which are bolted to the bottom of the top section, are made of strong metal strips. Place the rungs on the top section in such a manner that they will not interfere with those of the bottom section, when the hooks have slipped into place.—H.E.F., Texas. V



Sanitary toilet. A good house toilet can be made with a 15-gallon grease barrel. Cut off about 16", make a hole near the top for a ventilation pipe, cut out the cover and seat from $\frac{3}{4}$ " plywood, place a five-gallon pail in the barrel, and the job is complete.—D.S.M., Man. V

Protects Woodwork. Sections cut from an automobile tire, clamped over a sawhorse, as shown, will protect doors, panels and other

woodwork from being scratched or marred while they are being sawn or sanded.—G.M.E., Alta. V

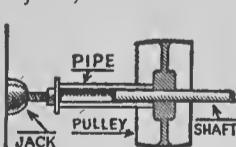
Electric fence. A truck battery can be used for your electric fence, instead of the hot-shot battery, which doesn't last long. With my truck battery, I can put it on my charger when it runs down, instead of having to buy a new battery.—D.S.M., Man. V

New use for jack. Most farmers own a jack, and it can be used for a wide

range of forcing jobs, such as pushing sheaves, bearings, gears, pulleys, etc. on or off a shaft. If you will take a look at the sketch, you will see that it is easy to set up a screw jack for this purpose, with the help of a pipe over the shaft, connecting the jack with the object you wish to move.—W.F.S., N.J. V

For Washing Machine. To prevent your washing machine from rolling about while you are operating it, make some small rope rings and lay them on the floor around the casters of the washing machine. These work in the same way as the cups used on furniture legs and casters.—G.M.E., Alta. V

Milk strainer. We now milk only for our own use, and find that a large strainer is too bulky and inconvenient, so here's how we made a smaller one. We removed the bottom of a four-pound honey can, drilled holes in the lid (smoother than punched holes), and then jammed a filter between the lid and the honey pail. A six-inch filter fitted just nicely, and there we had our milk strainer.—E.S., Sask. V



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HARVEST ALL YOUR CROPS
Grass Silage • Corn Silage
Dry Hay • Wilted Hay
Straw • Swathed Grain



THE ONE-MAN HARVESTER

The McKee Shredder Harvester brings your hay in at $\frac{1}{3}$ the cost of the baler method

With the McKee Shredder Harvester, you handle hay, grass silage or straw easily by yourself! You save the high costs of extra help. You go right ahead when the time is right and put in as much as 20 tons per day!

Bulk Handling Costs Far Less

Actual figures from buyers' records have proved that the McKee Harvester takes hay from windrow to barn at a cost of 97 cents per ton—as against \$2.54 per ton for baler method of handling. (Labour at \$1.00 per hour included for both methods.)

It's the only machine that loads in the field and unloads at the barn with no additional blower needed. The McKee Harvester travels to and from the field with the tractor and wagon. You feed hay into it for about 10 minutes every half hour . . . and the machine does the rest!

Produces More Palatable Hay

The McKee Shredder Harvester doesn't chop the hay, but shreds it for better feeding and easier handling.

Canadian-made and Proved

The McKee Shredder Harvester is Canadian-made by men who know the Canadian farmer's needs. That's why more McKee Harvesters are being sold on Canadian farms than any other make! Find out how its low cost and fast, one-man operation can save you money right down the line!

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New Corn Attachment
Time Payment Plan

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good tillage!**

The shank angles vary with various makes of chisel plows, and only EMPIRE chisel plow sweeps are made in 4 different stem angles to give you the correspondingly correct angles for good tillage with minimum wear and tear on the sweep and cultivator.

EMPIRE high carbon steel sweeps, shovels, teeth, chisels, spikes and steels are tougher too . . . thanks to EMPIRE'S Isothermal heat treatment process. They draw light, scour freely and last and last . . . under all soil conditions.

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Here's the cultivation team that really slashes grain production costs...saves moisture for bigger yields...saves time and machinery expense for bigger farm profits. It's the Oliver chisel plow and new arched front-axle Super 88 tractor.

Oliver chisel plow takes you a big step towards lower costs

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lengths: 4 to 16 feet...3 lifts: mechanical, hydraulic, and cable operated...a wide range of cultivators: points, sweeps and shovels...2 shank lengths: 16 and 22 inches.

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The Oliver Corporation, 6th Avenue and Halifax Street, Regina, Saskatchewan.



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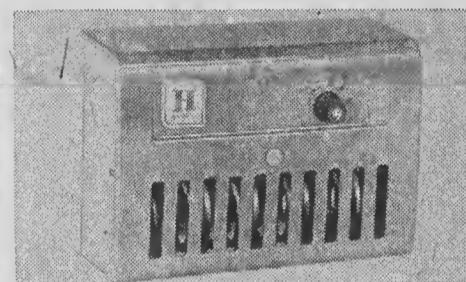
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 purchase plan
 Ask your Oliver Dealer

WHAT'S NEW



Known as "Nurs-A-Calf," these plastic bags are designed for feeding milk or milk replacer to calves through a nipple at a rate they can control themselves. The bags are graduated for easy measurement of liquid. (R. L. Kuss Company, Inc.) (170) ✓



The "Farm-O-Stat" controls temperature for heating or ventilating barns, poultry or brooder houses, hog or milk houses, pump houses, or crop storage buildings. It is strongly made, and is said to resist corrosion and to be proof against feathers, hay, etc. (Honeywell Controls Ltd.) (171) ✓



A new device for measuring the weight of cattle or hogs, alive or dead, the "Weighband" is put round the girth of the animal like a measuring tape, and the weight read on markings. (Canadian Organic Developments Ltd.) (172) ✓



This portable grain temperature measuring system includes a flexible cable, which is suspended from top to bottom of the bin. Sensing points inside the cable register the temperature on the reading instrument, which is plugged into an outlet near the bin. (Hot Spot Detector Inc.) (173) ✓

For further information about any item mentioned in this column, write to What's New Department, The Country Guide, 290 Vaughan St., Winnipeg 2, giving the key number shown at the end of each item, as—(17).

Young People

On the farm and at home



Graduation At Vermilion

Carman McChan, Bremner, shows visitor graduation dress made by classmate in sewing course, Vermilion School of Agriculture.



Eckhard Tiller of Lunnford poses Yorkshire gilt with which he won championship award. With them are V. Janssen (instructor), W. Mead, J. Fox (judges).

Young Farmers Turn to Drama

YOUNG farmers don't need to be ground down with the monotony of day to day chores in Ontario these days. Not while there is a Junior Farmers' Association where people are taking time out for debating and public speaking contests, dances and drama, leadership training schools, and the kind of social life that discontented farm youth are always saying goes with city life but can't be found in the country.

These clubs are active right across the province, and gaining emphasis every year in their program, are stage

plays, like the one in War Memorial Hall at the O.A.C. this winter. It was the fourth annual one for the best plays from Waterloo, Wellington, Halton, Huron and Peel counties. It provided adequate proof too, that there is plenty of place for talented young folk on farms today, and that there are talented folk there already.

For instance, in the cast this year, entertaining a full house of city and townspeople as well as farmers, was wrestler Bob Steckle of Kitchener. A small town businessman on the stage, Bob is an O.A.C. graduate in real life. He is a former intercollegiate wrestling champion too, and Ontario amateur wrestling champion and a two-time member of the Canadian Olympic wrestling teams.

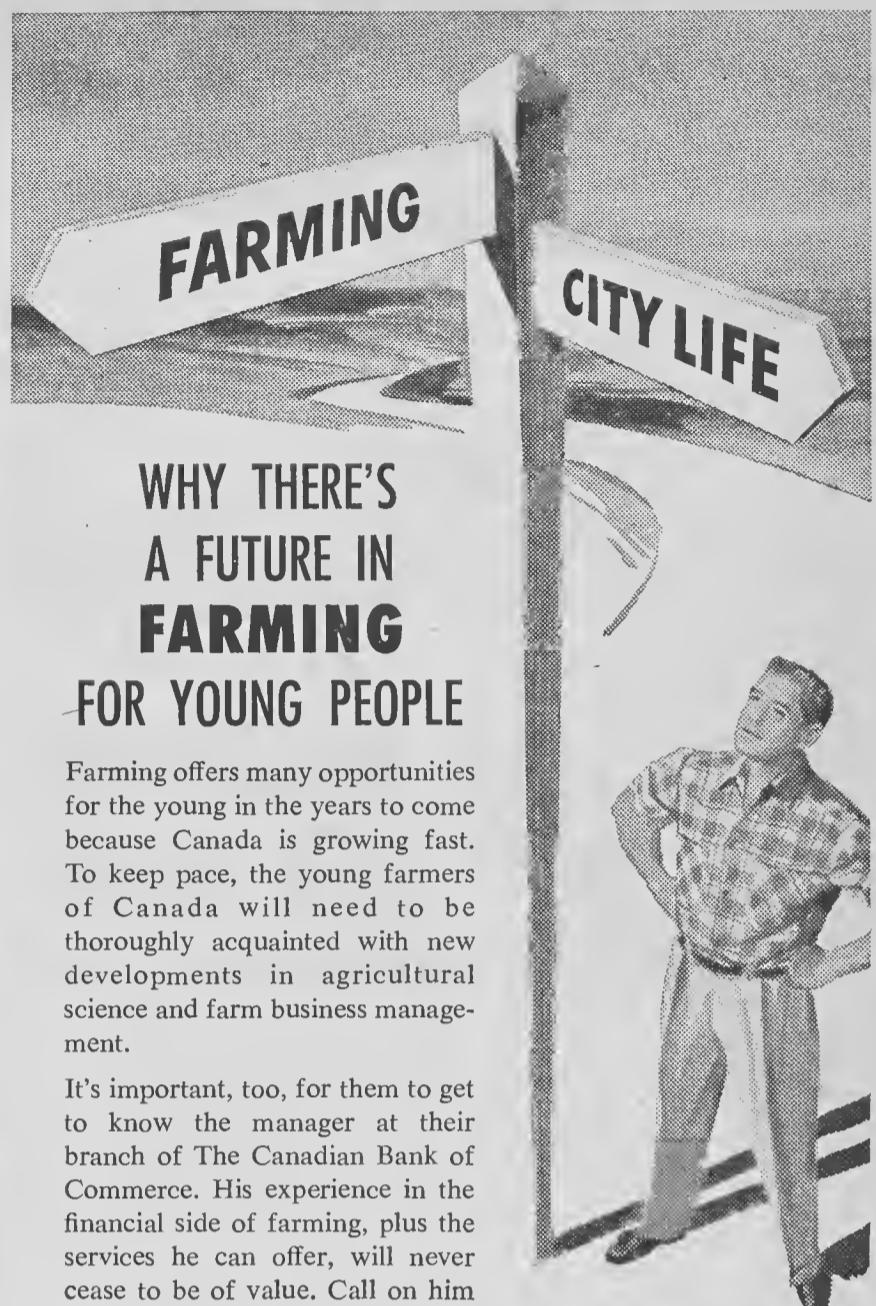
In the cast too, was farm girl Edna Strong, a well-known radio performer, who sings and plays the guitar in an old-time musical troupe. She played the distraught wife in a comedy in which bank manager Meredith Whitehouse had succumbed to a life-long longing to go to bed for a week.

There was Dave Wilson from Milton too, an immigrant of four years who is president of his local association, and who won the "best actor" award at the festival with a convincing display in the almost-overwhelmingly tragic "The Monkey's Paw."

These players provided a good change of pace too, and the award for best play went to the comedy, "The



Makeup added years to Lois Jones, mother in play, "The First Dress Suit."



WHY THERE'S A FUTURE IN FARMING FOR YOUNG PEOPLE

Farming offers many opportunities for the young in the years to come because Canada is growing fast. To keep pace, the young farmers of Canada will need to be thoroughly acquainted with new developments in agricultural science and farm business management.

It's important, too, for them to get to know the manager at their branch of The Canadian Bank of Commerce. His experience in the financial side of farming, plus the services he can offer, will never cease to be of value. Call on him soon.

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Specially hardened steel teeth, revolving at over 300 r.p.m., break up and aerate your soil—cutting and mulching weeds to produce a perfect seed bed. Compact design permits between-row cultivation.

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- **TOUGHNESS** — Resists tearing, puncturing, and distortion.
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YOUNG PEOPLE

"First Dress Suit," in which Ivan McClymont of Huron county worked up a country-boy drawl, a deliberate homely manner, and gave a remarkable portrayal of a backwoods farm boy rarin' to dress up in his first "dress suit" to impress the local girls at his sister's wedding.

Said the adjudicator, "His timing was good. His gestures were good and his twang was good." High praise from Mrs. Marianne Johnston, dramatist from the Stratford Shakespearean Festival! Her comments for all the plays were high tribute to these young players. About the Monkey's Paw she said, "A plot dealing with the supernatural, and the emotions were tremendous here." In just about every play, she said, "It was refreshing to hear such good diction. Costumes were good. Makeup was good, too."

But she criticized the plays too, and such criticism is one reason for the great progress in drama in Ontario. Junior farmers are having adjudicators at their festivals from the Ontario Drama League to help them continually improve.

"The great reward for the players in this kind of an evening," remarked Mrs. Johnston, "was the satisfaction and pleasure of creating a theatrical performance. That is all that matters."

And right across the province, clubs are reaping that reward now. At Kitchener, locals from each of the five townships of Waterloo county have entered one-act plays for the past ten years in their festival, and have been playing to capacity crowds in that city, too. This year, they went one better and had a two-night stand at the Kitchener-Waterloo Collegiate and got near capacity crowds.

Nearby, toward the Niagara peninsula, Norfolk, Lincoln and Haldimand county groups stage a drama festival

of their own. To the west, in Lambton county, about 15 local groups take part with three or four local drama festivals each winter. York county juniors specialize in three-act plays, while across in eastern Ontario, drama has caught on too, with Lanark county young farmers busy with their own plays.

But there are plenty of other advantages to this drama. In the big task before the farm society of building better farm-city relations, these drama groups are bringing their farm-made entertainment to the cities, and are forcing city folk to take another look, and reconsider their notions of what farm people today are like.

In putting people on the stage to perform, and often presenting their performance four or five times by the time they have played at the local town hall, then in the county finals, then at the regional festival, they are helping themselves to overcome shyness, build self-assurance, and laying the foundation for real community leadership a few years hence.

"Maybe best of all, these off-the-farm social events are helping to bring a new dignity to farm life," observes Art Bennett, youthful new secretary of the Ontario Junior Farmer Association.

"They are showing girls that life on the farm can be just as interesting and exciting as anywhere else, and counteracting the trend to more and more bachelor farmers."



John Drake, Ruth Brown watch Ivan McClymont strut in new dress suit.

Harnessing The Wayward Bee

CANADA'S fruit industry is worth millions of dollars, but too few people realize how many of these dollars are dependent on the wayward habits of bees and other insects which must transfer pollen from one blossom to another, and in many instances from one variety to another, before fruit can set and develop. Efficient pollination, therefore, is of great economic value to the fruit grower.

For best results, growers have found it necessary to grow some trees throughout an orchard solely for their pollinator value, trusting to the insects to carry pollen from these trees to other more valuable commercial varieties in the orchard.

The honey bee is the most useful pollinating insect, because it is grown commercially and can be increased to any necessary extent. The bees, however, are not interested in fruit production, and often fail to do a good job for a grower. Surveys made in Ontario in 1953 and 1954 in a Bartlett pear orchard containing pollinator varieties illustrate this very clearly. Trees growing alongside a pollinator tree, set only 23 per cent of their blossoming spurs, when a 50

per cent set is needed for a profitable yield. When separated from the pollinator tree by another tree, the set went down to 15 per cent, and when two trees separated them, the set was only 6 per cent.

Smart Brothers, apple growers in the Georgian Bay area, had failed to get a commercial crop at any time during the life of an 18-year-old pear orchard. Nevertheless, last year, this orchard bore a good crop. Here is the reason:

Success was due to the use of a simple gadget called a "pollen insert." The gadget is designed to allow the bees free entrance to the hive, but compels them to crawl through a tray of hand-picked pollen, of a suitable variety to effect cross-pollination, on their way out. Thus, on every call at a blossom for nectar, they are distributing pollen which would effectively fertilize the self-sterile blossoms.

The insert itself, and the method, have been perfected by Professor G. F. Townsend, provincial apiarist in Ontario, and his co-worker, Professor N. B. Smith, Department of Apiculture at the O.A.C., Guelph. "It is the



Profs. Townsend (l) and Smith, adding pollen to pulled out tray at bottom.

only one that isn't patented," said Professor Townsend, "and in our trials it has been the most satisfactory one we have seen." It could easily be made by anyone with a hammer and saw and some plywood, tin and screening. Professors Townsend and Smith have found, during the course of their work, that in sunny, warm conditions, two colonies of bees per acre, with inserts maintained in position for as little as two hours, can provide pollination of up to 100 per cent of the trees.

Properly used, therefore, these pollen inserts should eliminate the need for special pollinator varieties in many fruit orchards, which will in itself be an economic gain for a grower, because such trees are often of low commercial value. In addition, higher yields should be possible in many orchards which have been giving low average yields of fruit.

Hand-picked pollen is now available commercially from the United States, but Professor Townsend warns all growers that the pollen must be stored in a deep freeze, and when taken out, must be kept in sealed jars, placed in large jugs of ice. Moreover, only healthy, well-fed trees, can be expected to respond to such treatment. At least one commercial bee-keeper in Ontario, has offered this year to supply hives of bees and pollen inserts at a charge of \$25 per acre. V

Versatile Plan with Forage Harvester

ON and Murray Galbraith, who farm 200 acres at Renfrew in eastern Ontario, and run another 300 acres of pasture for the steers they feed off every year, make their forage harvester pay for itself.

When they bought it eight years ago (they have been making grass silage for over 30 years) they decided that it must do more than make silage if it was to repay their investment. Therefore, they now swath their grain, blow it into the forage box with their harvester, and then blow it into the separator again when they get it to the barn. Because they feed the grain, any breakage of kernels doesn't represent a loss.

The same system, without the separator, is also effective for handling dry hay on the farm. V



"Wish I'd bought my D4 years ago"

says W. R. Galbraith, Rosser, Manitoba



Caterpillar D4 Tractor with 16' disc tiller-seeder covers 8 acres per hour for about 4¢ an acre fuel cost.

"I had previously farmed with a gasoline wheel tractor. My decision to buy a CAT* D4 Tractor was governed by my wish for a tractor with increased traction and economy of operation, and by the reputation of our Caterpillar Dealer for service. Another factor in making my decision was the sure starting system, since our winters are particularly cold. I feel that if I had purchased this tractor two years earlier, I would have already paid for it in savings because of the increased work I am able to do and its economy of operation."

If you've been using a tractor of moderate or small working capacity, then you'll

be greatly surprised at all you can accomplish with a Cat Diesel Tractor.

The first full day you work on loose seedbed, you'll find you can cover up to 60% more ground than you would with wheel tractors of comparable engine horsepower. You'll work up hills, through mud, over newly cleared ground. You can push out trees and boulders, form land to facilitate proper drainage.

When you see how well you can do all these jobs—and many more—you, too, will say, "Wish I'd bought a Caterpillar Diesel farm Tractor years ago!"

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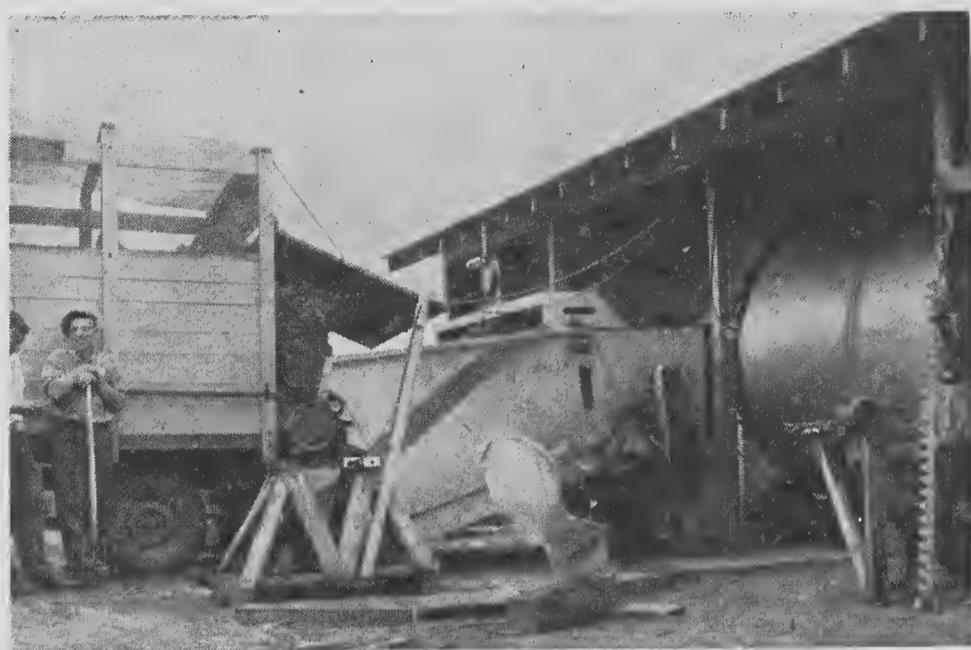
For all your farm fuels, oil and grease needs call us today.



ALWAYS LOOK TO IMPERIAL
FOR THE BEST

Seed Co-op Turns to Dehydrated Product

When wild bees became scarce, growers found alfalfa seed harder to produce



[Guide photos]
Alfalfa being unloaded into a dehydrating drum at the Co-op plant, White Fox, Sask. Forage is dried in the drum at a temperature of 1,200 degrees.

WHEN one product fails, try another. This policy is working out well for the farmer-members of the White Fox Alfalfa Seed Growers' Co-operative in northern Saskatchewan, who have switched a large part of their operation to dehydrated alfalfa meal. A new plant was set up in 1955, but because they made a late start, output was fairly small. Last year, however, both production and quality improved. The increased production had a higher carotene content, because they were able to cut their alfalfa at the right time and in the quantity needed.

This co-operative was started 22 years ago by farmers in the White Fox district, who considered that they were not getting a fair price for their seed. It grew steadily, and 14 local associations were formed across northern Saskatchewan. They accepted seed from other parts of the province too, and went into the export business through Canadian Seed Sales of Winnipeg.

In the peak year, production amounted to seven million pounds of alfalfa seed, but it has dropped to as low as one and one-half million, and the tendency is now toward the lower figure. The seed has become harder to produce because there are fewer wild bees to pollinate the alfalfa flower, and tame bees find it difficult to trip the flower. The wild bees have disappeared as a result of more intensive cultivation, which all too frequently has wiped out their nesting places.

Some of the deficit was originally offset by using their \$100,000 plant to process clover seeds and to market grass seeds for their members. However, this was not enough. As a result they invested \$60,000 in the new dehydrator, a development which breathed new life into the organization.

The dehydrator consists of a rotating drum, which can be heated up to 1,200 degrees by an oil furnace. Alfalfa is fed straight from the farm trucks into the drum, which has three

compartments. The forage is moved through the compartments and emerges thoroughly dried at a temperature of 300 degrees. A suction blower draws it into a hammer mill, then through a three-sixty-fourth-inch screen, and it is blown from there to the bagger, which weighs it automatically into 80-pound bags. It takes about five minutes to empty the drum, and the hourly rate is three-quarters of a ton.

The great advantage of this process is that a farmer can cut his alfalfa no matter how much it rains, provided that his fields are not too soft for his

Don't wait for a storm to find out your car's windshield wipers don't work. Test them at once. All through May, check your car, check accidents, urges the Canadian Highway Safety Conference.

machinery to work in. This applies also to orchard grass, perennial rye and oats, which can be processed in the dehydrator.

The White Fox Co-op has experienced a good domestic and export market for the alfalfa meal, and the members are convinced that their \$60,000 was well spent. v



Alfalfa meal, weighed automatically, is packed and stored in 80-lb. bags.

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CLUB VICTORIA

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Quality goes deep in the new Inner Ford! Ford has built-in quality in places you never see. Bodies are heavier, more sturdily

(Certain features illustrated or mentioned are "Standard" on some models, optional at extra cost on others.)

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at your Ford-Monarch Dealer's*



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for SCIATICA, RHEUMATIC and NEURITIC PAIN

Do you suffer from sharp rheumatic, sciatic and neuritic pains? Then read the good news reported by Mrs. Mary Tuff, 3273 West Second Avenue, Vancouver, B.C.: "For the past two years," she says, "I have suffered a great deal with muscular rheumatic and neuritic pain in my legs. My legs have ached so badly, and have been so painful, that often it has been hard for me to move about, and very difficult for me to do my work. Finally I decided to try Templeton's T-R-C's, and am thankful I did so. I can't say enough in favour of T-R-C's. I have had a splendid experience in using this preparation." If you suffer from nagging rheumatic, neuritic or arthritic pain, or from sciatica, lame back, gout or tic douloureux, let T-R-C's help you, too. Only 79¢ and \$1.50 at drug store counters. For stubborn cases, use T-R-C's SPECIALS—easy on sensitive stomachs. T-129

When Writing to Advertisers Please Mention The Guide

Great Sand Hills Ranch

Continued from page 11

John and Harry ranched in partnership until 1925, when Harry took over the Drowning Ford Ranch, near Medicine Hat, Alberta. His one son, too, is still ranching. And so is John Minor's only boy, John.

"But don't think I got this ranch on any silver platter," he insists. "It wasn't just handed to me. Dad tried to treat everyone in the family the same, me and my eight sisters. So I'm still paying off their shares."

John has the profoundest respect for his father's memory.

"Pop was a very hard worker, and certainly conservative in many ways. He was sometimes pretty rough in his talk. He figured in making 'men out of boys,' and he did, too. He hated laziness. We often had boys from eastern Canada here for the whole summer, some of them really wealthy kids. But they learned to work along with the rest of us, and kept coming back for more."

Gertrude Minor added, "Pop was dead against John going into the Air Force, or even learning to fly. When he bought his first plane, Pop snorted, 'You'll never catch me in that confounded contraption.' But after his operation, when he couldn't get around so well on the ground, he wanted to be up in the plane every time it took off."

John and Gertrude were married when both were 18, "too young," some said. They established their own ranch at Milly Lake, farther west in the Sand Hills. When his father's health began to fail, John ran both ranches, and finally had to decide between them.

The Saskatchewan Government was buying up ranches to create community pastures. It had to be one or other. John chose the old ranch, with all its ties of sentiment, as the better proposition. But in 1955, he also went into partnership with his cousin, in the Kisby Ranch, all-deeded land against the Moose Mountain Park fence. It's a beautiful country of lakes and streams, where they plan to run 1,000 cattle.

GERTRUDE MINOR was extremely shy at one time, but she had to get over it. For the house is rarely without guests, certainly every weekend and all through the summer.

"You never get a chance to be lonely on a ranch," she says, smiling. "And the electricity coming in last year makes lots of things easier."

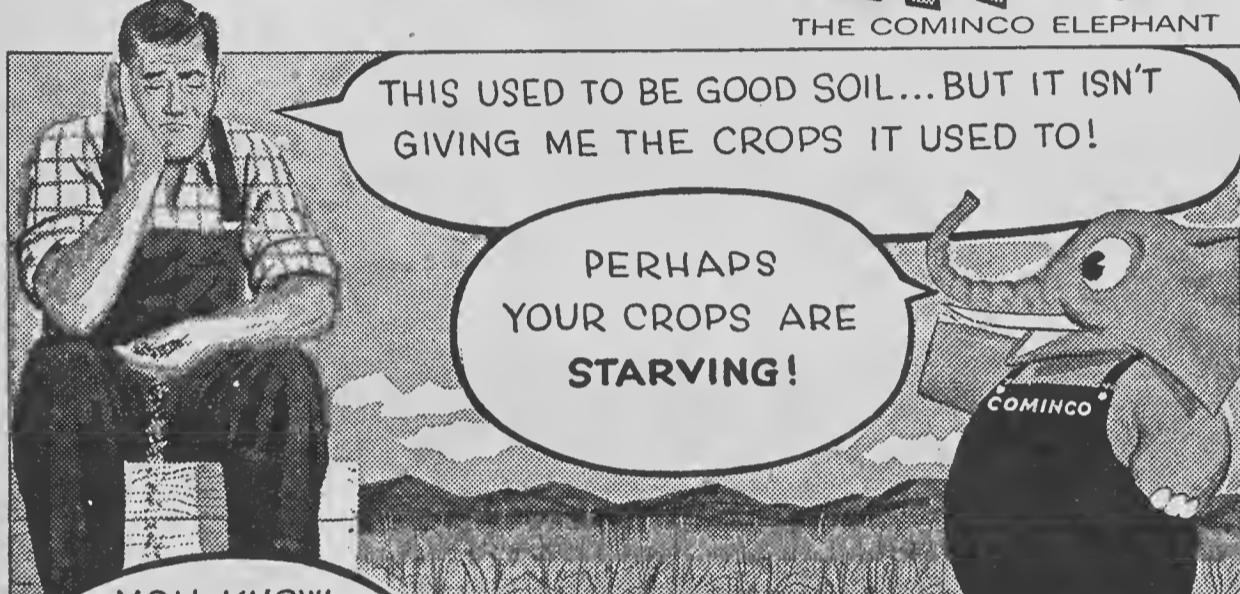
I noticed the television set, and wondered if the children found it as all-absorbing as city youngsters.

"Goodness, they hardly bother with it. Their lives are too crowded with action. But John and I enjoy it in the evenings. The children are usually off at school two miles away on their ponies, or in the holidays, gone for the day with a lunch. There's nothing to harm them, and I never need to worry."

One thing that Mrs. Minor can be sure of—that Ross, eight, will be collecting insects and flower specimens. He's an ardent naturalist. Barry, seven, a "natural-born cowboy" will be galloping somewhere, and Susan is sure to be climbing something. John keeps a responsible eye on them all. At home the children make their own beds (and once in a hotel surprised the chambermaid by having all their hotel beds made up). They take care of a few turkeys and chickens and their ponies. The pigs and the one sheep are fed by the ranch hands.

But the biggest houseful of company comes with the roundup, early in July. Mrs. Minor makes pies for the big event weeks in advance, storing them in a 25-foot home freezer. It didn't worry her in the slightest that she might have more people to feed than last year's crowd of 150. Many of these were onlookers, invited guests, but branding kept 40 men busy in the corrals.

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The three boys on their ponies helped with the roundup, like men. Breakfast for some 25 riders goes on the tables at 3 a.m. Then the riders go out—neighbors and visitors who can stick on a horse. John goes up in the plane, starts the cattle toward the windmill nearest the house. He finds that the plane does the work of ten riders. By 7 a.m. most of the cattle are into corrals, where some 1,300 calves were branded with his father's T-Triangle and his own Bar Lazy V brands.

John Minor uses his Super Piper Cub 125 for more than herding cattle. Strongly against the idea of a livestock marketing board, he flew 8,000 miles making speeches against the project, and is prepared to do it again, if necessary. As Vice-President of the Saskatchewan Stock Growers' Association, he's heard all the arguments on both sides.

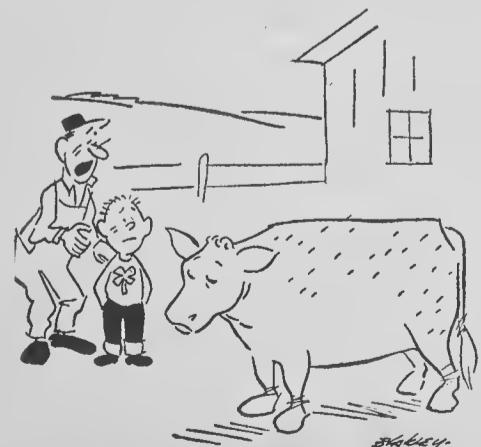
His plane has also gone on mercy flights. On one occasion, it was to a neighbor who hadn't left for the maternity ward soon enough. Minor picked her up at home in his two-seater, and they winged toward the hospital. Only seven minutes after the take-off when they were up 3,000 feet in the air and the temperature well below zero, the woman gasped, "The baby's coming! What'll I do?"

John broke into a cold sweat. But he said calmly, "Well, you can't stop it. Just keep it warm." There was nothing else for anyone to do, no point in landing on a bald prairie. The plane steamed up so that he could hardly see through the windows, as he landed near the hospital—with a brand new baby.

He also watches for maternity cases on his daily morning flight over the whole ranch. There are always some heifers to get bred by accident. All hands keep a careful watch in spring for these, because of the difficulty of delivery. One of the three ranch hands at supper mentioned a heifer in difficulty.

Immediately after dessert, the men rode out on horseback. The family and visitors piled into the truck, and off we drove over the open prairie, across the prairie chickens' dancing ground, over ridges and gullies. The heifer was down amongst some willows. John grabbed the calf-sling from the truck, while the rest of us kept a distance, not to frighten the young mother. Prompt action saved her and her calf, and we scuttled quickly away, so she wouldn't desert. I felt that I had witnessed a minor miracle.

"So you did," John countered with a pun. "A Minor miracle." ✓



"Try and remember what it was you added to the feed that makes it gain a hundred pounds a week. That could start a trend."

Ball Bearings Can Be Very Durable

WHEN first introduced on bicycles, ball bearings were considered a "delicacy," and they were rather delicate. But today they run on and on, under most severe conditions, so much so that even this writer is becoming amazed at the remarkable performance of modern types.

For instance, a test was conducted, of over five years of continuous opera-

tion, at 3,600 r.p.m., with a load on the bearing of 25 pounds. The total revolutions during that time amounted to a staggering 11,000,000,000—eleven billion. Did that wear it out? Not by any means. The testing experts stated that it was still good for many more thousands of hours of continuous running—many more billions of revolutions.

Ball bearings should not be allowed to become too hot, but don't be alarmed if they become warm. Sometimes the grease itself is the cause of the warmth. Thus, when a ball bearing starts up, the grease is usually cold

and it takes time to warm up the bearing sufficiently to thin the grease enough to be expelled from the contact and rotating parts. Then after that happens the temperature sometimes actually reduces. Therefore, to add lubricant to a warm bearing can often be a mistake, as there is such a thing as too much lubricant on ball bearings. Adding lubricant can make the bearing warmer. The right kind of lubricant is also important. If there is anything that deserves the best lubricant obtainable it is ball bearings on important farm machinery. — W. F. Schaphorst. ✓



You don't need to pay \$250 to \$300 for INCONSPICUOUS ... QUALITY HEARING AIDS!

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The facts of the matter are these: All modern hearing aids work on the same basic principles, with essentially the same advantages. No one hearing aid is notably more inconspicuous or convenient than any other of its type! Once the smoke-screen of exaggerated claims is swept aside, you'll find that the only important difference among better hearing aids today is the price!

How is Zenith able to offer you hearing aids of such exceptionally fine quality at such sensible prices?

The answer is simple: Zenith's outstanding quality is a result of over 38 years of leadership and growth in electronics exclusively. As for price: if Zenith paid sales commissions of \$145 to \$160, as some others do, even our \$65 model would have to sell for over \$200!

Not promises—but a genuine 10-Day Money-Back Guarantee of complete satisfaction! That's real protection!

Don't delay! See Zenith's superb line of 4- and 5-transistor models at your nearby Zenith Hearing Aid Dealer, listed in the classified phone directory. Or mail coupon for free catalog and list of dealers.

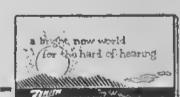
SHE is wearing her new Zenith Hearing Aid with fashionable slim-frame eyeglasses.* **HE** is enjoying the tiny, light, full-powered Zenith "Diplomat." Worn entirely at the ear. No dangling cords—even less conspicuous than eyeglasses!

*Lenses and professional services in connection with the eyeglass feature available only through your ophthalmologist, optometrist, or optician.

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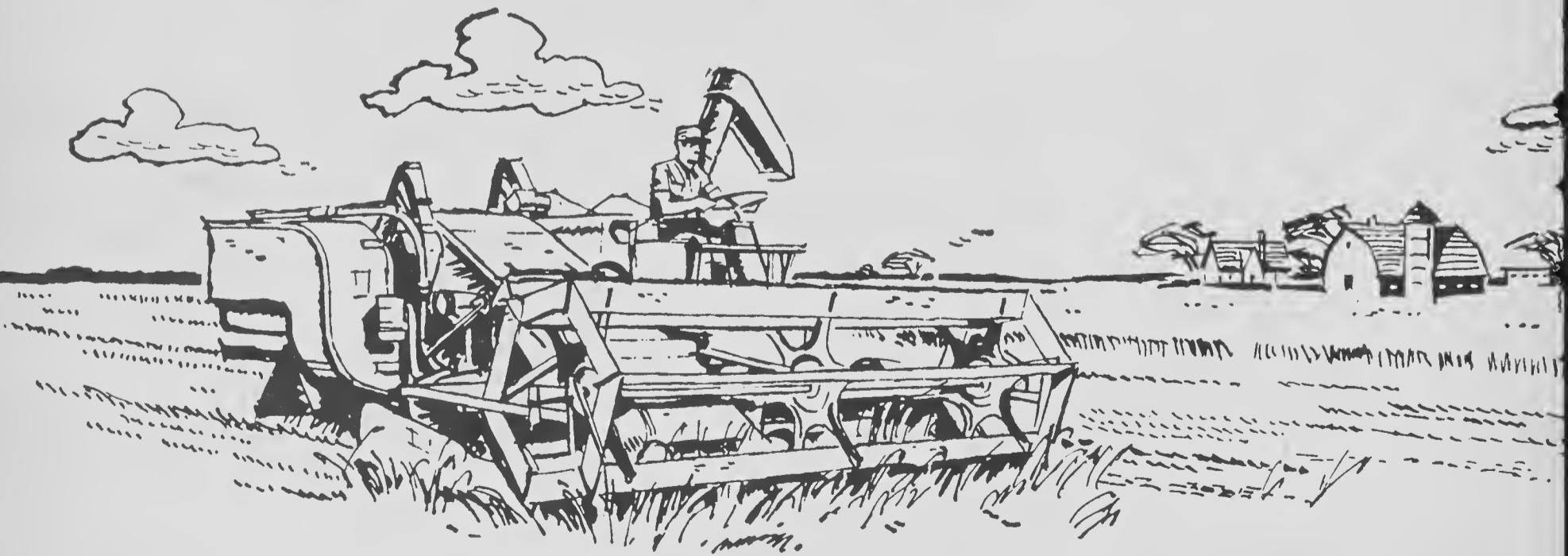
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the NEW LOW HIGH CAPACITY

FOR 1957

There's more, much more, than meets the eye in these new, Low Look Massey-Harris combines. The compact, field-hugging silhouette—up to 4 feet lower than most other makes—means improved manoeuvrability, increased all-round visibility, plus easier transportation and storage. And on top of all these new advantages, the Massey-Harris 82 and 92 Streamliners have all the capacity, threshing and separating efficiency that comes from Balanced Separation. This Low Look, High Capacity Line brings a completely new concept to "Self-Propelled" design. Make a point to see your Massey-Harris dealer—arrange to take a good look at these new low look high capacity combines . . . soon!

THE NEW MASSEY-HARRIS 82 and 92 STREAMLINERS

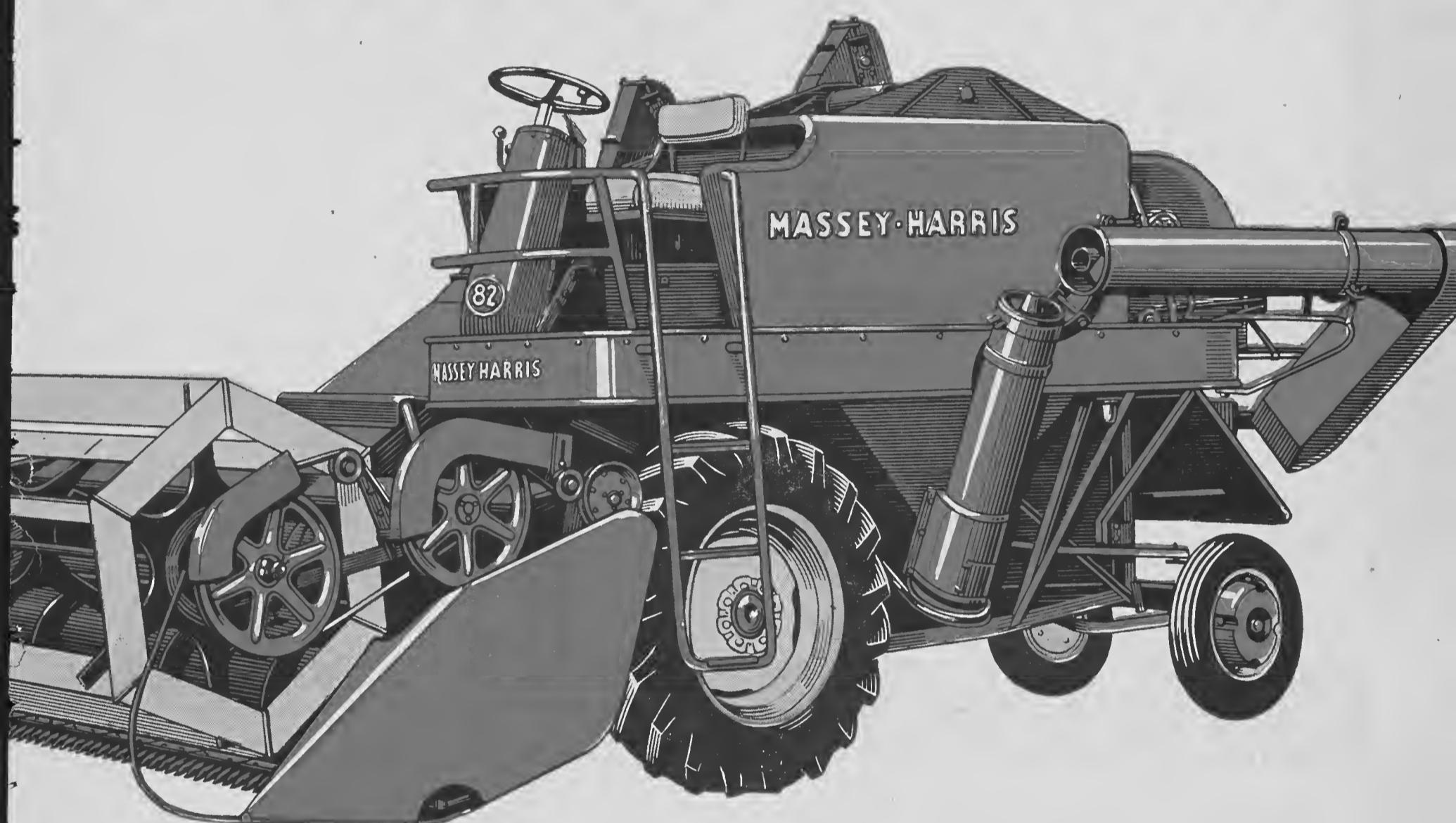


MASSEY - HARRIS -

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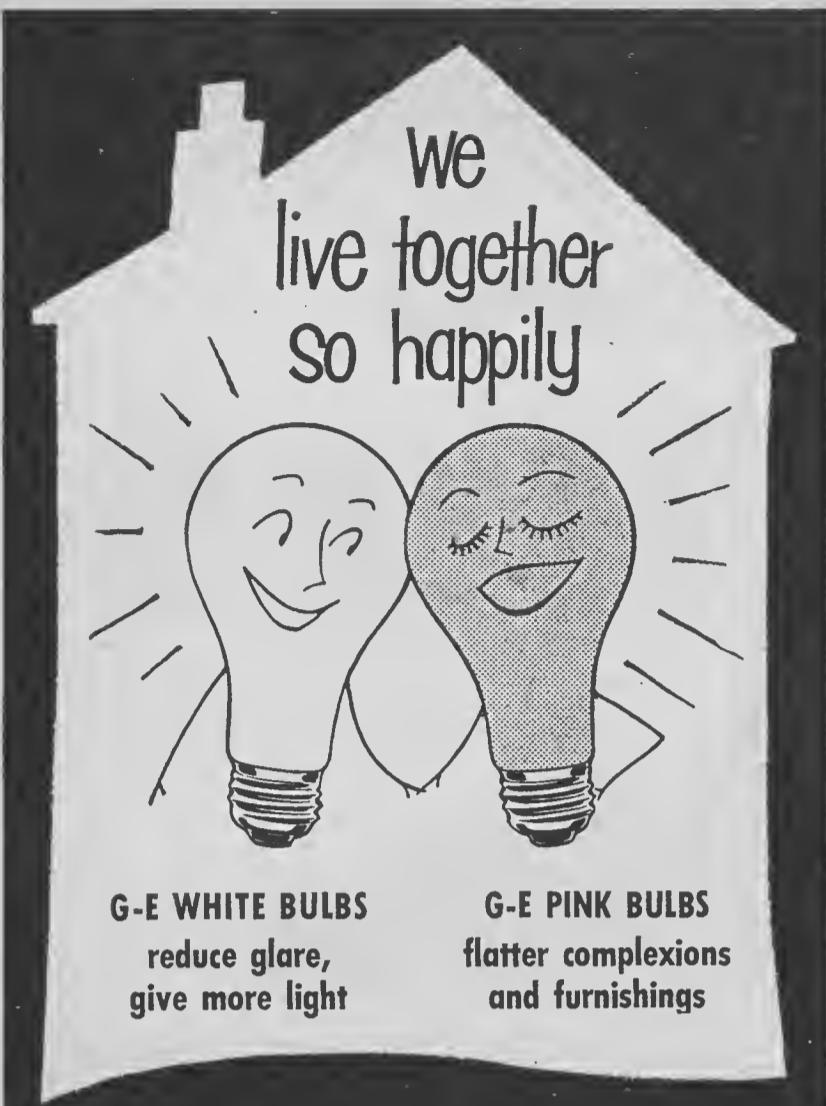
Here are some of the features that make the Massey-Harris 82 and 92 combines the finest in the field: Hinged auger assembly folds back for highway travel, is 18" longer to clear highest truck bodies . . . new grain tank platform for easy inspection . . . new larger gas tank (40 gals. on the 82; 50 gals. on the 92) . . . new rear exhaust outlet cuts down noise . . . four extra-long straw walkers . . . big capacity grain tank

(45 bus. on the 82, 60 bus. on the 92). Every feature, every improvement of the new Low Look, High Capacity Massey-Harris Streamliners, has been designed for just one purpose—to do more work for you . . . to do it easier, better, faster.

Your Massey-Harris dealer can give you all the details, call him—go see him when these two, all-new combines are on display!

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Willing to Learn Town Boy Makes Good

Modern practices and labor-saving devices put this farm on a sound basis



[Guide photo]

The quality of the Floyd herd seems to be well attested by this group of typy, and strong-bodied matrons, and by the correspondingly good pasture.

CAN a town boy farm successfully? Grant Floyd, who was raised in the town of Sussex, New Brunswick, has proved to his own satisfaction, that if a town boy is willing to learn, he can do as well farming as the next person.

Fifteen years ago, his father bought a farm, and before long, Grant himself began to take an interest in working the land. Visit Sussex View Farm now, and you could find at least several features of a model dairy farm. Among these are: permanent pasture grazed rotationally by the 25 to 30 purebred Holstein cows in summer; both tower and surface silos, the latter equipped with a self-feeding gate; loose housing for the young stock in winter; six acres of millet for silage

this year (Grant likes to try something new each year); land that seems charged with fertility, for manure goes onto the fields regularly, plus occasional dressing of fertilizer; and pasture and hay showing lush growth. This farm, that was mined at an earlier date, has come back, through good management, to good productivity.

Look in the stable and you'll see some of the results too: a surface cooler to quick-chill the milk, and a walk-in refrigerator to keep it cool until shipped.

While Grant Floyd has worked hard at farming, he doesn't deny that the land has been good to him. He has a good market for milk at Saint John, and has built up a herd of fashionable breeding so that his young stock are in good demand. Also he has taken time to work with farm organizations, and has felt that this work has been rewarding, too. V

Tested Bloodlines In the Spring Sales

O.A.C., and demonstration farm go for tested beef bulls

THE Ontario Agricultural College paid \$1,050 at the spring bull sales for a Hereford of performance-tested bloodlines. The 23-month-old animal, Ringwood Domino Heir 20, has not been tested himself, but his half-brother, "the 23rd," was the fastest-gaining bull to date under the

Can you see, steer and stop your car safely? The Canadian Highway Safety Conference warns "Check your car, check accidents," in May.

Ontario bull-testing program. The 23rd was retained for service in the Rodanz herd of 450 Herefords.

The livestock branch of the Ontario Department of Agriculture bought a tested bull for use at its new demonstration farm at Sault St. Marie, where a Hereford herd has been established. The bull, which carries the bloodlines of the Rodanz herd, gained 2.69 pounds per day when on test—a better than average score—and cost \$500. V

Awkward Bushel

Continued from page 13

But these 13 conversions are not the whole story. Whenever a calculation is made, it must be checked. Therefore, there are actually 26 conversions made in the above operations. In addition, many of the conversions must also be checked by the other party to the transaction. This suggests that the use of the hundredweight would permit important savings in the present costs of handling grain.

Another significant advantage of the hundredweight over the bushel system relates to feeding livestock. Producers are anxious to provide efficient rations at a minimum of expense. In securing the maximum net returns from livestock, careful attention must be given both to the nutritional value of the various feedstuffs that go to make up the ration, and to the changes in the prices of these feedstuffs. But tables of feed values are based on pounds, while feed-grain prices are quoted in cents per bushel. Moreover, the various grains being fed are at varying weights per bushel. As a result, farmers must constantly be changing bushels into pounds to determine the relative values of feeds at current prices. How much simpler it would be if all grain prices were quoted on the hundredweight basis to coincide with tables of feeding standards.

Here is an example. If feed wheat is \$1.33 per bushel and No. 1 feed oats are 68.5 cents, a ready comparison of costs is difficult, because of the different weights per bushel. If, however feed wheat is \$2.21 per hundredweight and No. 1 feed oats \$2.01 per hundredweight, relative costs are visible at a glance.

Other conveniences in using the hundredweight would be experienced by the millers, those who transport grain and those who export it. The millers have already changed the unit of flour measure from the cumbersome barrel unit to the hundredweight. They would gain further by having their in-product, the grain, handled on the same basis. The convenience of a uniform measure of weight to the railways, lake carriers and ocean shippers would also be considerable, because their transportation charges are already expressed in so many cents per pound. Similar conveniences would be gained by exporters dealing in international trade where the metric system is in general use.

ONE might well ask at this point, "What are we waiting for; if this is such a good idea, why not get started?" Well, like most matters that come up for consideration there are two sides to the story. What then are the main disadvantages that can be foreseen in switching to the hundredweight?

First, of course, is that the change would require considerable adjustment in our thinking. For years we have been talking about seeding rates, yields, prices, storage capacities and general operations in terms of the bushel. It would undoubtedly take some time for everyone concerned to get accustomed to the change to the hundredweight.

There would naturally be some initial cost involved. Forms, docu-

ments, and office equipment now used by the grain trade would need to be replaced, and its staff conditioned to the new unit. In addition, a whole new body of comparative and historical statistics would have to be developed to replace existing records.

Perhaps the foremost difficulty that presents itself is what to do about storage capacities and charges. There is a close correlation between bushels and space requirements, regardless of what grain is being considered. There is, however, no such correlation between hundredweights of the various grains and space requirements. A

hundredweight of 60-pound wheat and a hundredweight of 48-pound barley weigh the same, but the wheat requires 1 1/3 bushels of space and the barley slightly more than two bushels of space. Thus elevators rated at so many hundredweight capacity would have little meaning without a conversion table to give the equivalent in bushels. At the same time storage charges are established at cents or fractions of a cent per bushel. Such charges would have to be adjusted to take into account the different capacities occupied by hundredweights of the various grains.

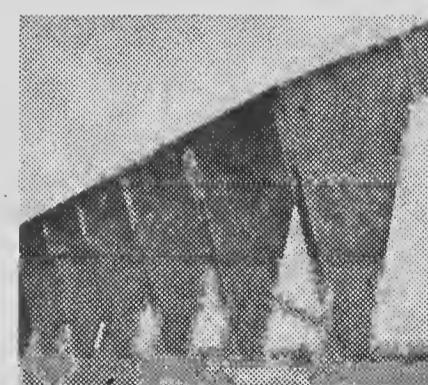
An analysis of these disadvantages does not seem to present any insurmountable problems. In the long run, people would get used to the hundredweight. The initial costs of making the change would soon be offset by the economies which would result from it, and farmers would generally benefit from its adoption. The storage problem could, it would seem, be resolved. V

Without a tail light your car is a night-time death trap. During May, check your car, check accidents, says the Canadian Highway Safety Conference.

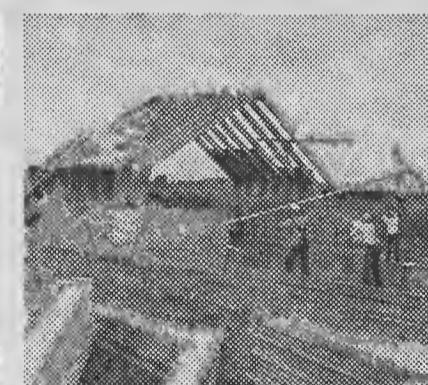
NEW METHOD low-cost FARM BUILDING erected by 6 men in 2 days

J. Cracknell, of Cairo, Ontario, built this Sylvaply clad 32 ft. x 70 ft. poultry house for 95c per square foot. This cost included materials, labor and 35 windows; feed room, fitments and painting were extra. How did he do it? The answer lies in the amazingly simple RIGID FRAME system for building

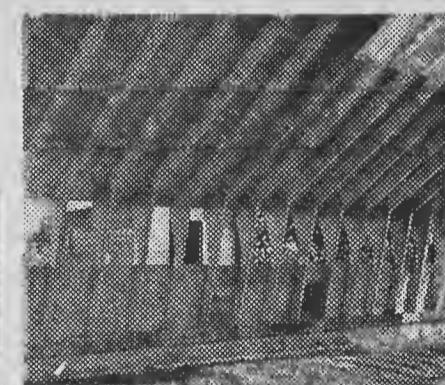
low cost farm structures of any length in clear span widths up to 38 feet. Rigid frames are simply arch rafters formed with four straight pieces of lumber joined together with fir plywood gusset plates as shown below. All the materials you need are in stock at your local lumber dealer.



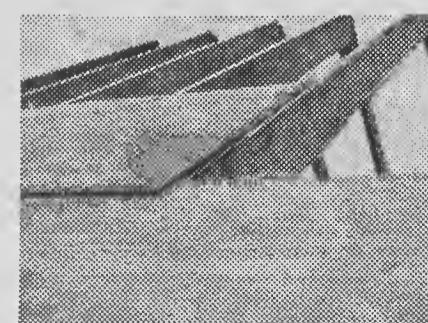
Each half arch consists of two pieces of lumber connected by nailed gussets of 5/16" Sylvaply. One man and a boy nailed four complete arches per hour.



Sylvaply wall and roof panels are nailed to arches as each is pushed up in place. Practically no temporary bracing is needed during construction.



Note ample headroom at sidewalls. Walls can be closed in with another run of plywood or spaces used for windows as required.



For rigid frame or other types of farm building, lapped 3/8" Sylvaply panels provide a serviceable, low-cost, single skin roof.

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[Guide photo
Angus cattle, like these, do well on the Teece farm near Lemberg, Sask.]

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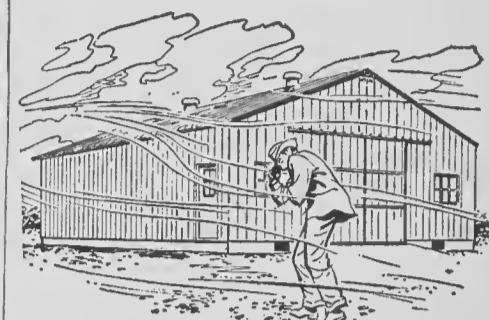
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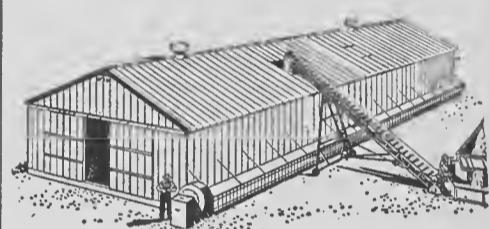
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just farrowed with a total of 25 pigs, raising 23. The sire of these litters is a litter mate to the Grand Champion, at the Peterborough Show in Scotland. The dam of the sows was Padnell Cowslip 2nd which sold in Scotland for \$3,300 and her litter mate sold for \$5,400. When you purchase from us you get the best breeding stock that money will buy. Weanlings, four-month-old, six-month-old sows and boars, guaranteed in-pig sows, and serviceable boars for immediate delivery. Start with the Best Catalogue.

**Fergus Landrace Swine Farm
Fergus
Ontario**

The fact that the Rt. Hon. J. G. Gardiner, Minister of Agriculture, is their immediate neighbor at Lemberg may be an added incentive for them to farm well, but the pioneer work of Harry Teece has something to do with it too. V

Efficiency and ACA Saved the Poultry Farmer's Day

Forced to make a radical change, many Annapolis Valley farmers and orchardists have now turned to poultry and co-operation

WHAT do you do, when suddenly your main farm crop isn't wanted any more? This question has faced farmers right across Canada during the past few years. One group in Nova Scotia found the answer, at least in part.

Fruit growers in the famous Annapolis Valley, because of loss of markets, low quality varieties and poor yields, were forced to tear out large numbers of their old apple trees. Many took up the slack in their farm incomes with new poultry enterprises. Such large establishments as the Ells brothers' poultry farm, and the Chase farms, have focussed attention on the area. Hundreds of other apple growers have also built laying houses, raised a brood of pullets, and gone into the egg, or poultry meat, business.

Each year more and more fowl are being trucked to Halifax and other N.S. centers. Eggs are also being hauled to Halifax, shipped to Newfoundland, and exported to Bermuda and other countries.

Two decades ago, the poultry business in the apple district was one of small flocks, poor quality eggs and fowl, and, in the eyes of many, one of generally poor prospects.

"Twenty years ago, the quality of N.S. poultry was the lowest of any place in Canada," admits deputy minister of agriculture Waldo Walsh. "Prices in this province were lower than at any point east of Saskatchewan. Since then, poultry has grown from a \$4 million business to one worth \$12 million each year. We are shipping poultry to the United States, and to the big markets in Ontario and Quebec. Nova Scotia growers now produce top-quality poultry meat and get top prices for it."

You can find much of the development story mirrored in the experi-

ence of the poultrymen's own co-operative, at Kentville, in the heart of the Valley. In 1943 it was just a small co-operative, the outgrowth of a couple of district poultry clubs that organized to kill and grade their birds, to take advantage of a central pack. An old apple warehouse served to handle the produce. However, the Co-op in that same year obtained a new charter, and with it a new lease on life. During the next three years, through the persistence of a few of its original members, they were able to move into more adequate accommodation, a remodelled apple warehouse. This project took some financial assistance, and it was obtained through a grant from the federal government, under the Cold Storage Act, and in the form of a loan from the provincial government. Now it's well on its way to what manager A. L. Blenkhorn calls a "million dollar business."

The Co-op, called the ACA, after the Annapolis, Cornwallis and Avon Rivers, put through 30,000 pounds of fowl in Easter week a year ago, and handled a yearly total of 1.5 million pounds. Records for 1955 show that it sold \$408,000 worth of eggs, \$465,000 worth of poultry meat, and \$12,000 worth of merchandise, and had a total turnover for the year of more than \$900,000.

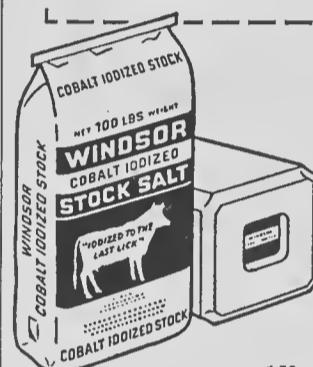
Mr. Blenkhorn left a government job to take on the management of the operation in 1949, at a time when it was losing money. By 1951, the volume of business had reached about \$385,000, and membership, which stood at about 300 in 1946, had almost doubled.

The ACA plan for success has not been founded on any new razzle-dazzle formula. Rather, it has been based on devotion to sound business principles. The Co-op doesn't buy and



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Guide photo
Co-op manager A. L. Blenkhorn (in shirt sleeves), with W. J. MacLeod, N.S.
Dept. of Agriculture, sizing up a rack of fowl in the ACA plant, Kentville.

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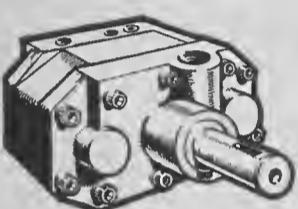
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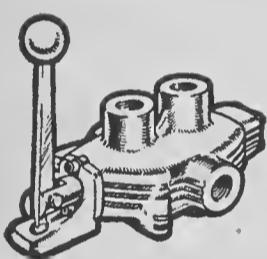
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Beef-Pasture Tests at Melfort



Guide photo
Steers on test are penned each week in the grazing season for weighing.

THE Melfort Experimental Farm, Sask., has become one of the major pasture research stations in western Canada. Animal husbandry, field husbandry and forage crop workers have joined together on a single project. It is designed primarily to establish the relationship between livestock gains and pasture management, with a view to discovering whether high-priced land can be used profitably for forage crops and beef. The answer will be of great importance to the northeastern corner of Saskatchewan, where the beef industry is relatively small at present.

They buy 136 steers from one ranch in the fall, and carry them over the winter on a maintenance ration. As soon as pasture growth permits, the steers are divided into two groups. One of these is pastured on a bromelalfalfa mixture, and the other on intermediate wheatgrass and alfalfa. After two weeks, the groups are subdivided into a total of 12 herds—three on each pasture mixture for continuous grazing, and three on each mixture under a rotational grazing system. Each of the six continuously grazed pastures is six acres, and there are 18 rotational pastures of two acres each. In addition to these there is a holding pasture of 14 acres, divided equally for the two mixtures, which is used if any of the other pastures need to be rested.

To further test the carrying capacities of the different mixtures and grazing systems, the number of cattle on each pasture is adjusted to compensate for under- and overgrazing. Another element is introduced into the tests by applying no fertilizer to two pastures in each group, 20 pounds of nitrogen to two more, and 20 pounds of nitrogen with 40 pounds of phosphate to the remainder.

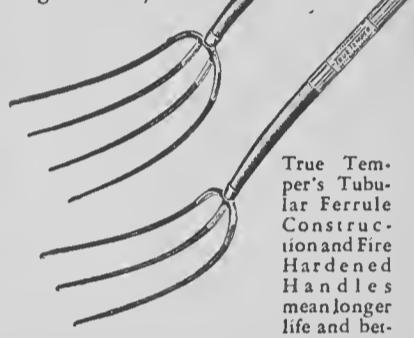
The weights of the steers are taken each week during the grazing season

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to show the comparative gains. These weights are the criterion for determining which mixture is the more productive, which is the better grazing system, what care is needed to maintain growth and fertility of forage crops, and whether beef cattle can be produced economically on this type of land. It will be some time before any definite conclusions can be reached. V

**A New Weed
From the Orient**

by G. A. STEVENSON

THE first record of Persian Eremocea in North America appears to be from Brandon, Manitoba, where it was found by the writer in the Canadian National freight yards about the middle of July, 1955. It is a rather short, weedy, annual grass, with little foliage and a relatively large panicle, or head. The plants at Brandon averaged about six or seven inches in 1956 and carried a good crop of seed, which ripened about the first week in July. It appears to have no agricultural value whatsoever, and may or may not turn out to be a bad weed under Canadian conditions. The behavior of a newly introduced weed is unpredictable, and all newcomers are worth watching for a few years. The grass is native to the countries of the Near and Middle East — Asiatic Turkey and Syria to the Caucasus and North West India. Within recent years it has been found as a weed in most of the western European countries and in the British Isles.

In 1956 the main patch at Brandon covered about half an acre, but occasional plants were found scattered over a much larger area. When it first became established would be difficult or impossible to determine, and how it got to its present location, or where it came from, is not known. There is no previous record of its occurrence on the North American continent, but it is only reasonable to expect that it has been introduced and become established at other points, but has, up to the present, escaped detection. It is an immigrant of questionable character, and its behavior at Brandon will be watched closely during the next few years. V



This weed, Persian Eremocea, found in Canada first at Brandon, in 1955.



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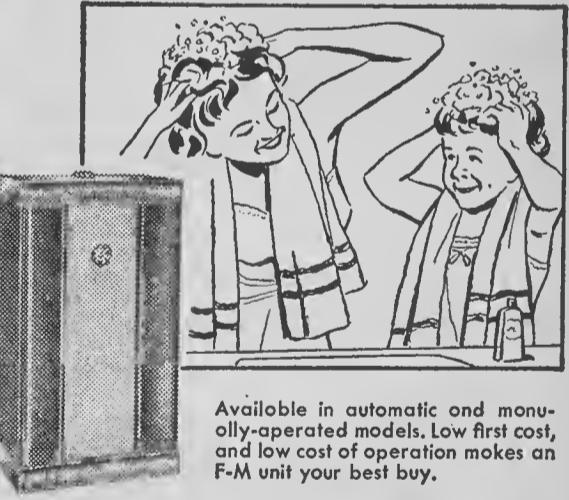
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Turkeys Do Well On Gravelly Soil

by JOHN F. CANNING

HERMAN LOWEN, who claims Lethbridge, Alberta, as his birthplace, came to the conclusion, after farming in that district for five years, that ground that was almost entirely gravelly would make an ideal location for raising turkeys on a large scale. The results of the last two years have justified this faith, and last fall he marketed over 9,000 birds.

Since buying some land on the north bank of the Old Man River, about two miles west of Fort Macleod, modern brooding and laying buildings have been erected. Mr. Lowen is fortunate in having his father, J. J. Lowen, engaged in the same line, and operating a 17,000-eggs-per-month turkey incubator at Coaldale, Alberta.

Starting at Fort Macleod in the spring of 1955, around 4,000 turkeys were raised, of which 1,000 hens were kept for laying.

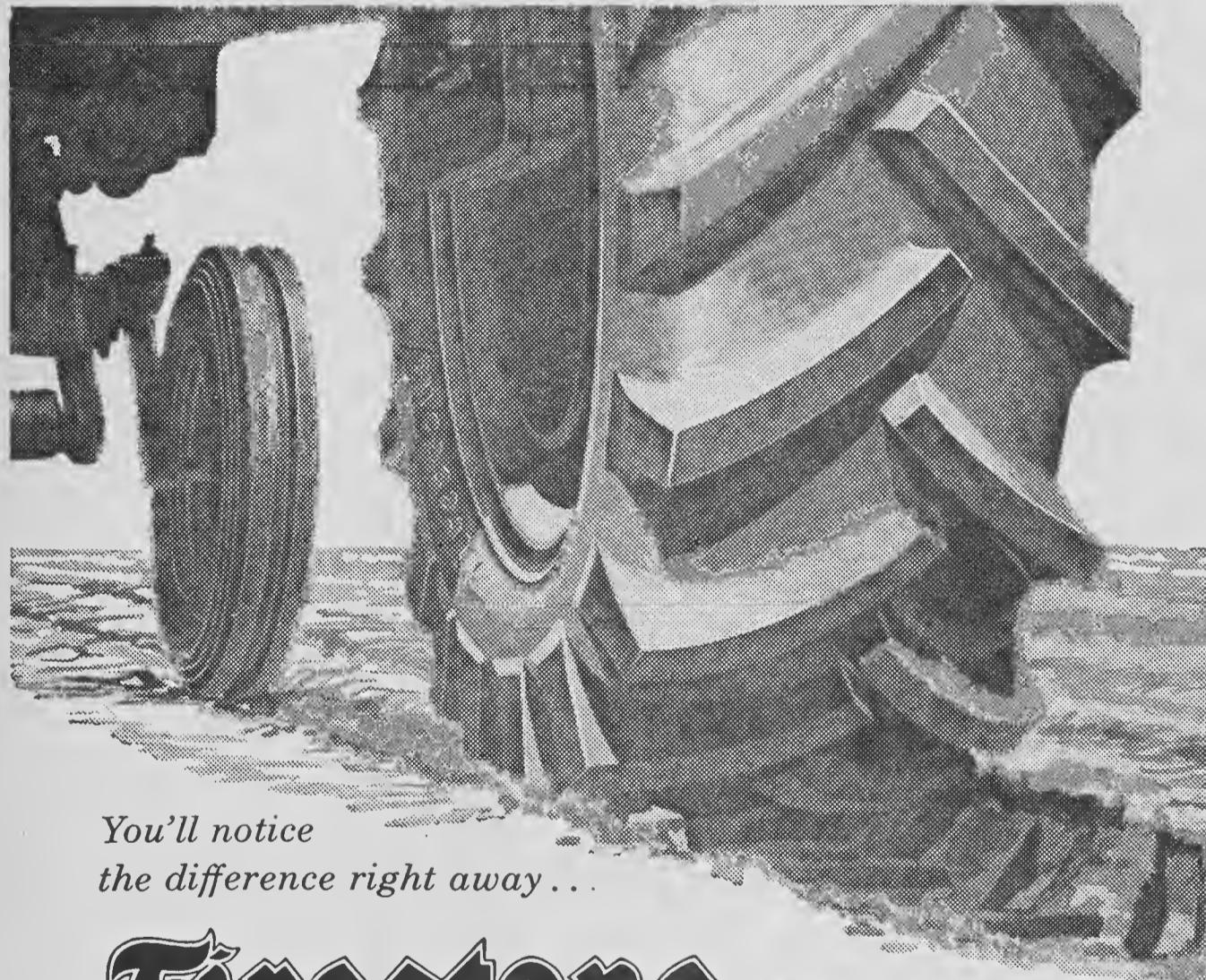
When the weather becomes cold the hens are housed in a spacious building 160 by 50 feet, lighted by electricity. Under natural conditions a turkey does not commence to lay its first clutch of eggs until some time toward the latter end of March, but under the influence of lights, egg-laying can be advanced to the middle of January, with the stimulation of appropriate feeding rations.

The eggs are shipped to a turkey hatchery and the young poult returned. The laying house is also a rearing one, but the earliest poult are brooded in two smaller houses, until the large house is no longer needed for the layers. These are sold in May, and 16 propane hovers are then set up for brooding.

All feed, right from the start, is in pellet form, except the grain ration. This is used as a supplement to the pellets, after the young birds are sufficiently developed for it.

Beginning with starter mash for two months, going on to growing mash, and a grain mixture of wheat and oats, Mr. Lowen has had excellent results with commercial mixed feeds. All standard brands of turkey feed contain the necessary supplements and vitamins. He claims that his range is so porous, with its gravel base, that rains wash it clean, and, contrary to the old, accepted practice of having turkeys roost in trees, the poult at the Fort Macleod ranch take their nightly rest on the ground, except for a few that escape from the penned range and take their siesta in the cottonwood trees that grow beside the Old Man River.

Some of the yearly crop is disposed of at Thanksgiving, and the balance is held for the Christmas trade. Last fall the turkeys were being trucked to Calgary in early November, 1,000 at a load, and there killed, eviscerated, and stored for selling. The reason was that the period immediately preceding often brings wet snowstorms, and that condition is one that turkeys cannot tolerate for long without catching colds, which can develop into the blackhead disease, and others equally disastrous. Every bird was to be sold, because Mr. Lowen had decided to change stock and import 50,000 eggs from California early this spring, which Mr. Lowen, Sr., would incubate at Coaldale.



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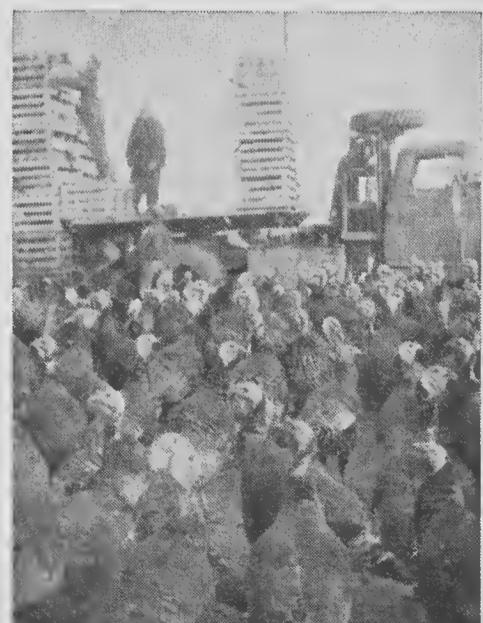
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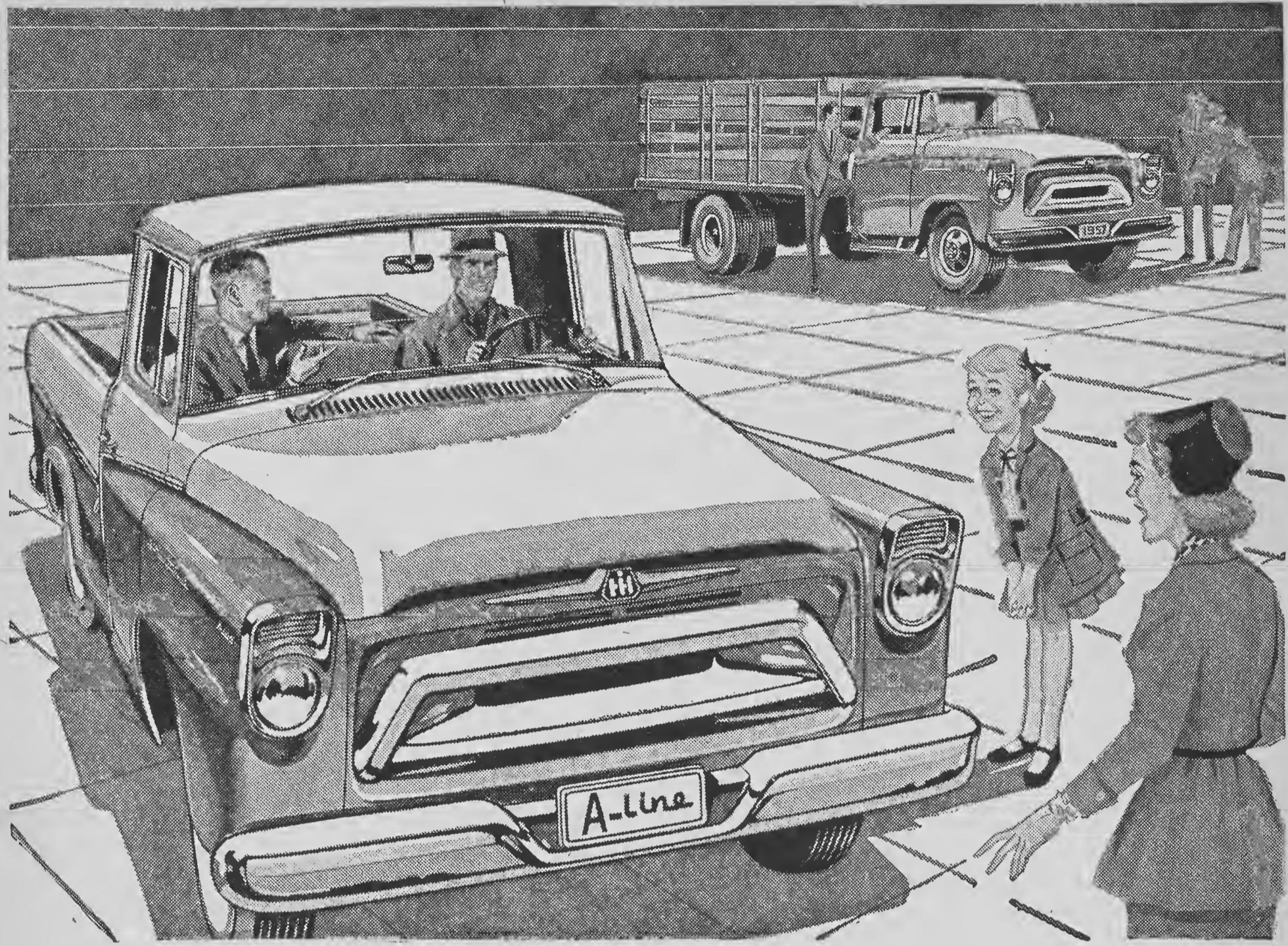
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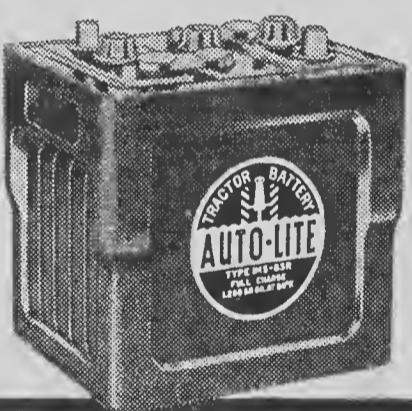
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Ponies For the Young



Shetland ponies bred and raised on the Partridge farm, Carnduff, Sask.

was in Peru on a potato research mission, we were touring the docks where the lake ships leave for Bolivia when I made my discovery.

I was busy watching the millions of minnows from the end of the pier, when I chanced to look down. There, at my very feet, I found what I had come nearly 7,000 miles to find—wild potatoes. True, the handful of sand on the pier didn't allow for great growth, but they were definitely potato seedlings; and what's more, they were growing close to Lake Titicaca, just as the old school geography book had said.

POTATO varieties grown today in Peru have been developed, or selected, to suit varying tastes and growing conditions in the Republic. Potato growers there, I discovered, have many diseases and pests to contend with, including serious troubles like wart, golden nematode, Andean weevil (mostly in high altitudes), late blight, and, of course, various types of virus diseases. Strangely enough, though their soils are on the alkaline side, common scab apparently is seldom troublesome.

Other farm crops used in the rotation by the Peruvian farmers include broad beans and Chenopodium (closely related to lamb's quarters), commonly grown around Lake Titicaca at an elevation of 12,500 feet. Below 10,000 feet corn does very well and is widely used, doing particularly well under irrigation around Arequipa in southern Peru, as does alfalfa and wheat, Montana being the favored variety.

At Arequipa some 1,300 miles south of the equator, I saw my first International Wheat Test growing at the Experimental Station. Maybe I was a mite homesick at that time, but when I saw the Canadian varieties Chinook and Rescue doing well and waving their golden heads in the plots, it was like seeing an old friend from home. (Incidentally I saw a feathered friend in Arequipa, a robin, though bird watchers say that it just couldn't be. My reply to that is that I was a long way from home, too!)

I may have been unlucky of course, but all the time that I was in Peru I failed to see one good fat steer that would tempt me to order a T-bone steak—money and other factors permitting. Most of my observations were made, however, on stock that I saw in the poorer Indian pastures high in the Andes. The dairy cattle (mostly Holsteins) that were fed from the lush alfalfa fields around Arequipa, were naturally in much better condition. Some fair looking bulls of our common beef breeds (Shorthorn, Hereford, Aberdeen-Angus) were seen on the communal ranges; and around Lake Titicaca, bulls of Highland cattle stock seemed to be making themselves right at home in the hills there.

From what I could see, little or no effort is being made to improve the generally observed nondescript razorback hog that, often as not, were included in the family herd of cattle, sheep and alpacas that were driven out to community pastures in the morning and brought back by the women and children at dusk. At the lower elevations, and particularly in the south, around Arequipa, the donkey is the usual beast of burden, one memento at least for which the

Land of the Llamas

Continued from page 14

clouds, or follow some extra precipitous mountain wall, with its gorgeous covering of flowers, shrubs and trees, as it melts into the distance, and you have something to stir your imagination. Or wander among the ruins, stopping to eat luscious native strawberries as I did, or to sample the blackberries that block your path. Maybe you'll be lucky, too, and find a native Solanum species waving its potato-like flowers from among the rocks—though such a discovery might not give you the same thrill that it gave me. But you may stumble on something to keep you interested.

Another somewhat similar potato find occurred on New Year's Day during my stay at Lake Titicaca. All that morning I had combed the hilltops at about 13,500 feet looking in vain for some trace of native potato species. Then, in the afternoon, with Dr. Fred Cochrane, horticulturist from North Carolina State College, who

country can thank the Spanish conquerors.

Officials in the Ministry told me that there are many large and prosperous farms, or haciendas, operated by well-to-do Peruvians using modern machines. Time did not permit me to see these and my observations were pretty well confined to the small, Indian-operated farms, many still being run in a manner not greatly changed from early Spanish or Inca times.

Where plows are used by the Indians in Peru, many of them are similar to the wooden types introduced by the Spaniards after the conquest in 1535. The ones I saw were pulled by patient, plodding oxen of mixed heritage. Hand plowing, planting and cultivating is still practised by many Indians, particularly those who make a precarious living on small patches of land, in the semi-barren soils of the Andean highlands, around 12,000 feet, or more.

FOR the most part the members of the various Indian tribes are industrious, law abiding and live together in communal harmony, much the same as their ancestors did centuries ago. Judged by our standards, the Indians live a drab, dreary existence in their adobe huts, generally devoid of windows, or chimneys, where the smoke from their fires comes sifting through the straw thatch on the roof.

Despite their obvious lack of such material comforts enjoyed by most Canadians, and without much hope of betterment to look forward to on this earth, the Indians have the amazing

ability—and wisdom, too, perhaps—to be happy with what little they have. Smiling does not come easy to them, though they sometimes relax with their own children. They appear to be good parents and attached to their families—and to their llamas, those haughty aristocrats who have shared their unhappy destiny for generations.

Unlike the human natives of Peru who have bowed their heads and made their truce with necessity, the llamas have never bowed their heads and have made no truce with anything, or anybody. Undoubtedly there is a bond of understanding—and affection—between the Indian and his llama, but the haughty beast of burden knows his rights and insists that they be adhered to, come what may.

Certainly he'll carry his master's produce to market. As a cousin of the camel he knows that this is his job; and he stands patiently while the pack is being fitted on his back. But he knows to within a pound what he can carry and still retain his dignity, and his master respects his wishes, knowing full well that he will bring dire consequences upon himself if he doesn't. Likewise the Indian knows better than to use the llama as a draft animal; or, if he wants his choice llama wool, he must devise other means of obtaining it than clipping it like he does his sheep and alpacas.

Yes, undoubtedly the llama is the aristocrat among all animals, and his presence on his country's coat of arms not only adds dignity to it, but emblazons it with that air of dramatic mystery that has enshrouded Peru for centuries. V

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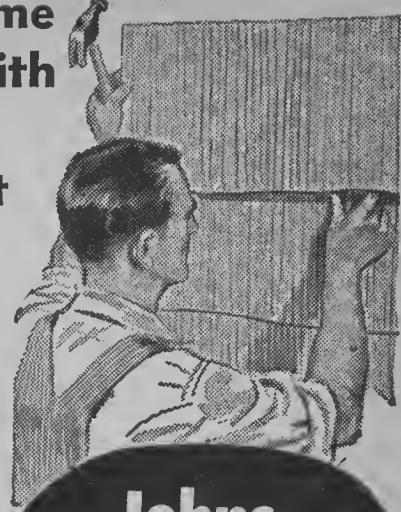
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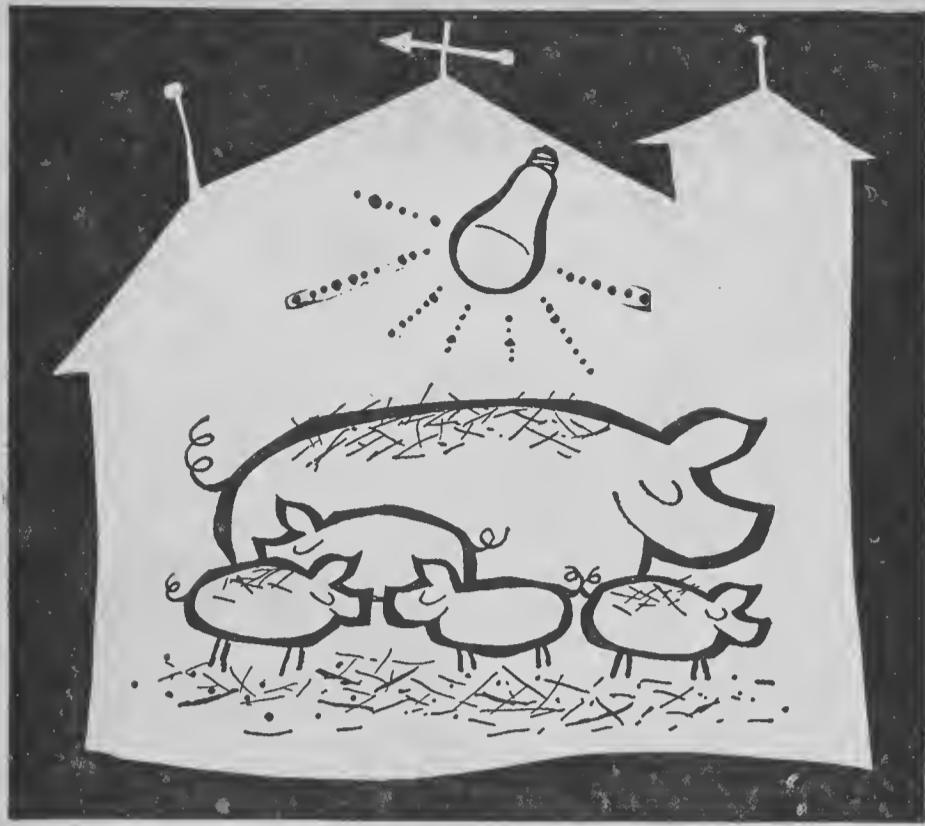
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Weigh All Market Hogs

Too many market hogs bring a lower price than necessary for lack of weighing

by ARTHUR REDDON

WHEN a pig fails to reach the top grade, it means a serious loss of income to the farmer. Therefore, it pays to look into the reason for failure, the extent of the loss, and what can be done about it.

Sound breeding under good conditions is essential in the pig business, but that is not the whole story, because many pigs fail to grade well through over- or under-finish. In fact, if they were marketed at the proper weights, the proportion of Grade A carcasses could be doubled. A properly fed and managed pig of good breeding should be marketed between 185 and 220 pounds live weight to produce the desired Grade A carcass of 140 to 170 pounds. Pigs with a tendency toward the short and thick type will grade higher, if they are marketed under 200 pounds live weight.

The extent of the loss through lower grades is considerable. There are between 5,000 000 and 6,000,000 hogs produced for market annually in Canada, and the national average is 30 per cent Grade A carcasses. Saskatchewan, with ten per cent of the hogs in Canada, ranking fourth among the provinces, has a considerable income from hogs, and yet Saskatchewan farmers obtain only 23 per cent Grade A, and in Alberta, under 20 per cent.

The Maritimes average as high as 50 per cent Grade A. But in spite of such variations, every province would clearly benefit from the better grades that correct weights can give.

That is why I suggest that you weigh your pigs, and here is a weighing device that is easy to make, and should meet the requirements of most producers.

It consists of a frame, supporting a weigh handle, dial scale and weigh box. The dial scale is of the spring-balance type, with one-pound graduations and a total capacity of 400 pounds. It costs about \$30 and is available from most livestock equipment houses. Even if this scale has no other farm use than to weigh pigs, which is unlikely, the investment can be recovered quickly in increased quality premiums and carcass prices alone.

The operation is simple. Place the weigh box at the opening into the pig pen. Raise the sliding panels at each end to encourage the pig to walk through the box. With the help of a hurdle (see Illustration II), drive the pig into the box and then drop both of the end panels. The pig is weighed by pulling the weigh handle down, raising the box and the pig until their weight is taken by the scale. The tare of the box can be allowed for on the scale by setting the point back from zero. The scale then records the actual weight of the pig.

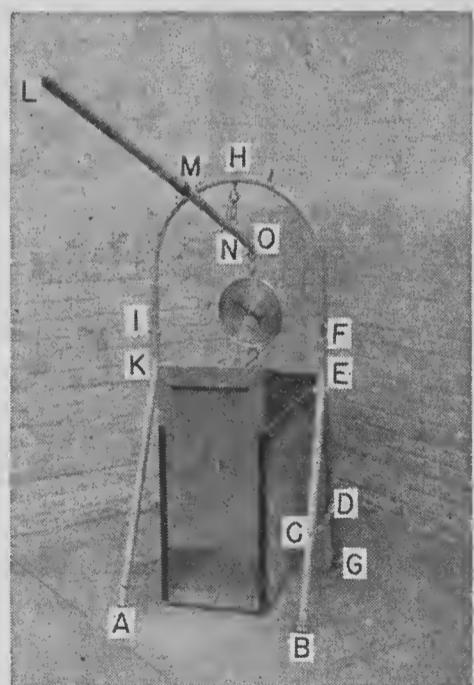


Illustration I.

How to Make It. Use 1" galvanized pipe to make weigh stand (illustration I). Hinged legs measure A to B 26", B to C 13", C to D 15", C to E 21", E to F 7". The arch, FHI, measures 56". Legs are joined to arch by seizing 12" lengths of $\frac{3}{4}$ " pipe into each joint (F and I). Legs are hinged at E and K by bolts, and are prevented from spreading, by chains at positions C and D. The stand can be made rigid if you don't want to dismantle it for storage.

Hook for the handle is $\frac{3}{8}$ " rod joined to stand at H. Handle LMNO

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is 72" long, made of two pipes joined with standard coupling, at M. N to O is 12", and an eye-bolt at N attaches to hook H with short chain, enabling height to be adjusted. The U-type hook at O connects with figure-8 hook at top of dial scale.

Weigh box of $\frac{1}{2}$ " plywood is 45" long, 14" wide and 26" high, with floor projecting $\frac{3}{8}$ " beyond ends of box for sliding panels to rest on. Sides are riveted to floor with 20-gauge sheet metal at right-angle. End panels slide between metal flanges and sides of box. Sides have 20-gauge sheet-metal caps, and are joined by $\frac{3}{8}$ " by 16" rods at 6" intervals along top. Rods are threaded and secured by nuts inside and outside box.

Box is attached to weigh scale with $\frac{1}{4}$ " chain (12 links per foot) criss-crossed from corners of box and joined by S-hook.



Illustration II.

Useful hurdle. This is a handy device (see illustration II) for driving pigs in and out of weigh box. It consists of two sheets of $\frac{3}{8}$ " plywood measuring 24" by 36", and joined by hinges. Hand holds are cut in the panels of the hurdle.

Weather In a New Light

Continued from page 15

pointed official forecasting and reporting agency for the inauguration ceremonies and parade, Krick, on January 11, said general storminess over the week-end preceding the Monday inaugural would begin to clear up the morning of the ceremonies, and pave the way for cloudy, chilly, but dry weather for the inauguration, succeeded by another storm the following day. The U.S. Weather Bureau said they thought Krick was guessing on his ten-day advance forecast. But came the day of the inauguration, and the Krick forecast hit the conditions squarely on the head, even to more storminess which followed the ceremonies by a day. Even more amazing, the data used by the UNIVAC was current only to July of 1955. The same forecast actually could have been developed 18 months earlier, with the same accuracy!

Of course, even the UNIVAC has its limitations. Since the method is comparatively new, long hours of operation face the UNIVAC before it can turn out enough single, future atmospheric solutions to provide the basis for day-to-day forecasts for long periods into the future. But with each passing day, more solutions from the UNIVAC provide the Krick long-range forecasters with more guides in determining future weather for the columns of The Country Guide. In ap-

proximately six months, the forecasts on these pages will be completely the result of the UNIVAC computations.

What these long-range forecasts—which ultimately will extend five years into the future—will mean to the agricultural world is difficult to envision. The scope is so broad. The following are some developments that it is at least reasonable to hope for. Unusually late, or early, frost conditions will become apparent each year, well in advance of the growing season, to allow planting at times when frost is no longer a danger. Conditions conducive to hailstorms, such as yearly wreak havoc in the western provinces, will be foretold well in advance, enabling the hardy agriculturists of those regions to engage hail suppression companies and to take other steps to avoid economic ruin when the storms strike. Cold outbreaks will become apparent well before they occur—and the adequate warnings will save many head of livestock. Heavy snow warnings will enable ranchers to foresee the need for adequate livestock feed. Extended periods of strong winds that tear both seed and topsoil asunder will be foreseen well before the planting season, and can, in many cases, be avoided by prudent planning.

The applications of such long-range forecasts to agriculture are virtually limitless; but, perhaps the greatest value of such a forecast will lie in the ability to estimate precipitation and soil moisture content years in advance, and enable entire agricultural economies to be planned well into the future. Crops can be planned to coincide with wet or dry years; budgets can be adjusted to allow for the dry years of faltering crops that will be forever with us; weather modification projects can be contracted on a basis of future need; droughts will be foretold and their termination predicted. No longer will the turning of sod be considered a gamble; the forecasts from the UNIVAC will provide a guide to the feasibility of such activity, and the probability of the valuable topsoil drying and blowing away in future years. By careful coordination with UNIVAC forecasts, drought disaster funds should become unnecessary, not because of the elimination of drought, but because entire countries will be able to plan their crop production, supply, and marketing around future weather conditions.

Industry, so closely allied with agriculture, will benefit in a similar manner. Farm machinery manufacture can be stepped up in the good years; diverted to other products when the demand isn't so great. Heating, air-conditioning, fuel suppliers and manufacturers will be able to better judge fluctuations in the sale of their product and its future demand. Virtually every industry dependent on the weather will benefit—and virtually every industry is dependent, to some extent, on the weather.

That is, perhaps, still a bit in the future. But as the UNIVAC grinds away in the Krick laboratories, the day is rapidly approaching when The Country Guide reader will be secure in his knowledge of the weather conditions that will affect his crops, his family, his life.

When that day arrives, the biggest poker game in the world—agriculture—will revert to a friendly game of bridge between man and the elements.

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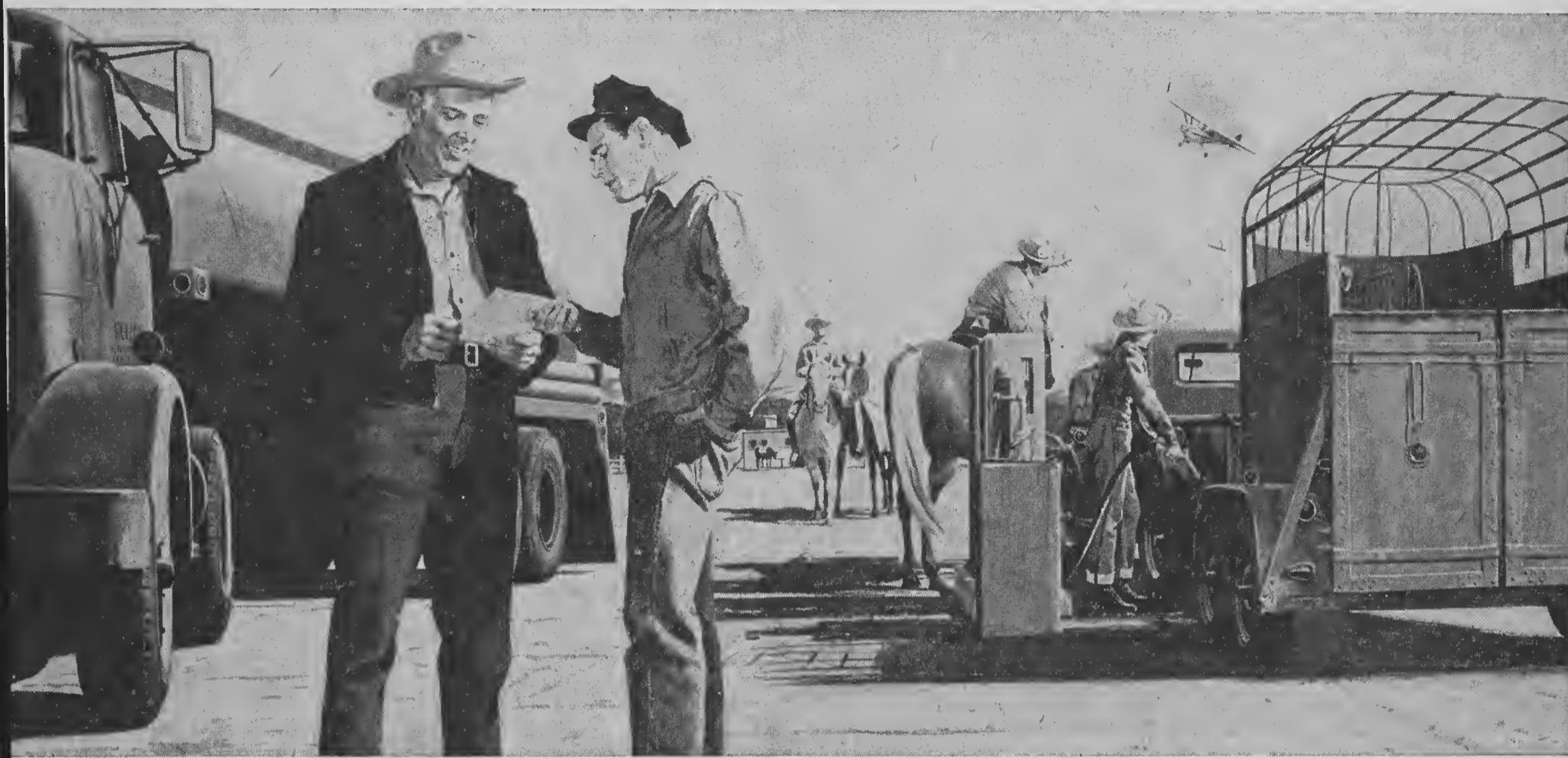


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Bake Apples

by A. G. AYRE

ANYONE who has travelled by rail in Newfoundland has probably tasted the popular, favorite dessert—bake apples. After a late spring which delays ripening, many people in Newfoundland and in Labrador, where bake apples are profuse—have been busy picking these delicious berries, either for sale, or for home use.

Growing on a small plant, three to ten inches above the marshes, bake apples are segmented like raspberries and are of similar size. In fact, the berries are sometimes known as mountain raspberries. Other popular names for them include cloudberry, knotberries and mountain brambles. A member of the rose family, the proper name is *Rubus chamaemorus*. Bake apples are easily distinguished, when ripe, by their bright, reddish-yellow color, which contrasts strikingly with the dark green leaves of the plant.

Some people regard bake apples as an acquired taste—they have a slightly pungent flavor and faintly musty aroma, reminiscent of the marshes from where they come. Like most berries they can be used successfully in many ways. Bake apples are particularly enjoyable as a preserve. They are rich in pectin and jam easily. They can be bottled, they make good pies and are always acceptable when served raw with cream.

Youth is a silly, vapid state;
Old age with fears and ills is rife;
This simple boon I beg of Fate—
A thousand years of Middle Life!
—Carolyn Wells.

it had to be done. I asked the store-keeper could I give him a dollar now and the rest when I went and got it, and could I please take the plane along, it was very important. He seemed to size me up, and said, "Okay, boy."

Churning up the green harbor came the tuna boats, and one had a flag up, but I couldn't stop for that. In the hot blaze of the summer morning, my breath choke-tight again in my throat, I came to where Benny still sat disconsolate. I cried, "Look, Benny! Look what I've brought for you. Isn't it a beauty? I want you to have it, Benny."

Benny's eyes turned to it; then to me. He said, very quietly, "Thank you very much, but I don't want it. Please take it away. I don't want anything but just my own plane." . . .

The man in the store said, "Changed your mind?" and I said "No. I bought it for my brother and he—he doesn't want this one." I'd have forgotten my deposit only the man called after me didn't I want the dollar. When I reached the wharf, Helen said, "You almost missed it. They've got a whopping big one."

We stood watching, but I kept thinking of Benny. Looking at the tuna I couldn't help remembering Benny's mermaid with its shining tail. I thought perhaps Benny lived in a world of his own and maybe it was real to him. Still, he shouldn't get to saying things that weren't so, I told myself defensively, not proud of my part in it. I tried to tell myself this was all for Benny's good, and that was how Mrs. Pritchard meant it,



FILCHOCKS

could, "Why didn't you? Why didn't you tell her? You know you shouldn't make up things that aren't so, and say they are."

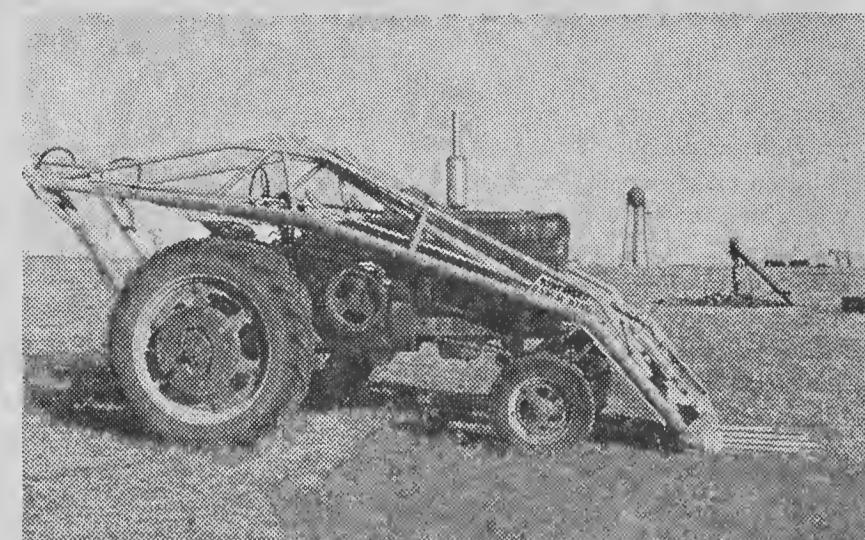
Benny just looked at me, then down at his ruined plane. I walked away, slowly, back to where Helen was waiting.

"Do come on," she said. "The tuna boats will be in if we don't hurry."

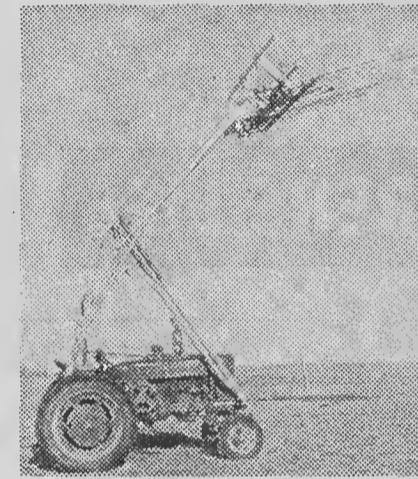
I said, "Let them." It was the first time I'd ever spoken crossly to her. We were silent walking down to the village. I told her she'd better go on to the wharf. I'd join her later. I couldn't help it if she didn't like it.

IN a toy and novelty shop the tourists patronized I found a plane, all shining and wonderful, bigger far than Benny's. It would eat up most of my allowance for the summer but

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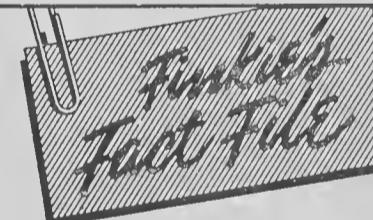
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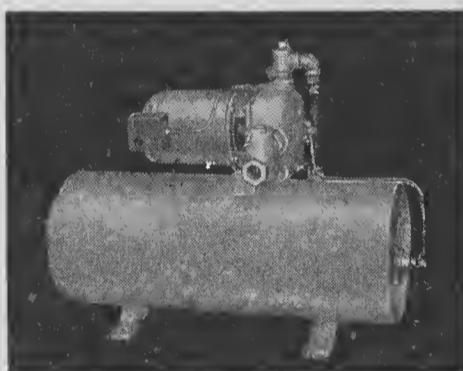
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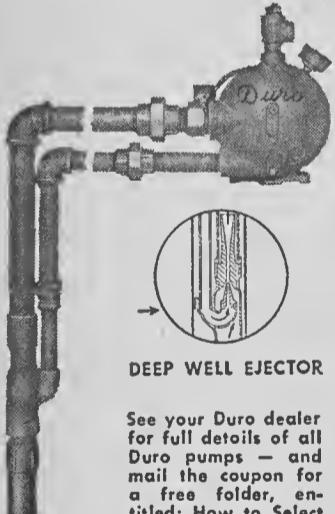
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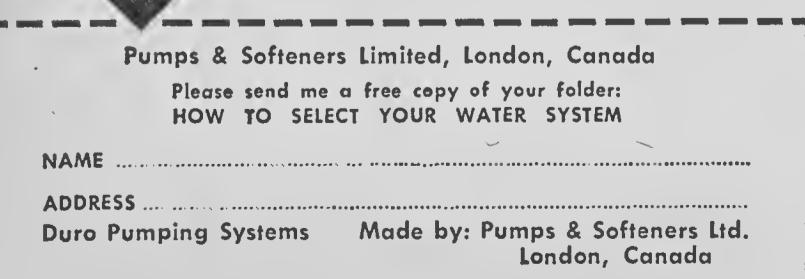
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though my gorge rose at thought of her.

Suddenly Helen grabbed my arm. "Look!" she pointed. Other people were looking, too, almost forgetting the big tuna. What I saw was a dory, with a man rowing it. In the stern, leaning languidly back, amused by the stares of the crowd, was a girl. I heard someone explain, "Yes, they're grooming her for a part in an underwater picture." I saw her golden hair, all dripping wet, with seaweed still clinging to it. I saw the smoothness of her body, and I saw the shining green scales on her mermaid's tail.

Though Helen was beside me, I can't remember anything of that walk back. We'd go over to her place afterwards, she was saying. Benny was no longer out back with the ruins of his plane. What he did with them, where he hid them, I never knew. He was sitting on the front steps, chin in hands looking into space.

I went to him and said, "Benny, it wasn't a lie. I'm sorry I ever said it was. I've seen your mermaid and I'm going in right now to tell Mrs. Pritchard."

Benny didn't look up or move his hand from under his chin.

"It doesn't really matter—now," he said.

I felt that there was nothing I could do, nothing really—even if I lived to be a hundred years old.

Helen was calling, "Aren't you ever coming?"

I wanted to go. I wanted in the worst way to go, seeing Helen standing there, sunlight on the dark glossiness of her hair, her eyebrows arched in a way that stirred all my feeling for her. I thought if I don't go now maybe she'll never want me again, but I said, "I can't just now."

"Go on," Benny said, still not looking up.

"No," I said. "I'm stopping with you, Benny."

I went and sat beside him on the step. I knew when he moved over to make room that he wanted me, though he'd never admit it. I sat there wondering why my feeling for him was something so deep and warm and personal that even Helen couldn't enter. It was just me and Benny. Just my brother Benny and me. And a bond between us passing the love of women . . .

OUR boy, who had forgotten something, came running back in from the street. He saw his mother and myself looking at the picture, and his haste was for a moment stayed. "I wish I'd known my Uncle Benny," he said, and then ran to join a chum outside.

My wife and I were silent for a moment.

"He's very like him," she said.

We looked again at Benny's picture. My brother Benny in his airforce uniform, with a waiting plane as a background. Planes were always a part of Benny's life, right to the end; a secret love too deep for words. I have often thought he would have asked no other ending than he had, high up over an earth that could assess and mourn only the falling fragments.

"I've always been so glad you went back and sat with him. I think that's when I really began to like you very much," Helen said.

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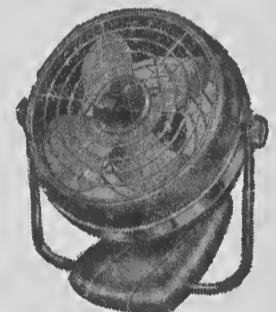
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The Countrywoman

Exile End

Now I lie upon my bed
And the surfing sea sounds fade;
I am in the valley hut
That my heart and fingers made.

I am truth-sprung from the earth,
I am faith-fledged of a star,
Light and shadow were my birth
Where the crested mountains are.

Now I lie upon my bed
With the questing surf so near,
But farther than the tilting song
Of the solitaire I hear.

Farther than the river stone,
Farther than the forest tree,
And never heard above the lone
Silence of tranquility.

Now I lie upon my bed
Where the wind is sand and foam,
My last breathing mountain-fled
On tansy air of home.

—GILEAN DOUGLAS.

THE appointment of Mrs. Nellie McNichol Sanders, by order-in-council, to the position of Magistrate and Judge of the Juvenile Court of Greater Winnipeg was welcome and interesting news in the press on April 20. When she assumes her new duties on August 1, she will make history in being the first woman to serve as a judge in any Manitoba court.

Many will recall that some 30 years ago, there was cause for rejoicing among progressive thinking women and men in four other provinces: Alberta, British Columbia, Saskatchewan and Ontario, in that they each had experienced having their "first woman judge" appointed. While the title "juvenile court" is used and generally accepted to mean a family and domestic relations court—which may vary in jurisdiction as among the various provinces—it is now regarded as an important and necessary agency in modern society.

In Manitoba the juvenile court deals with a wide range of cases in which adults may be involved, as well as children who are termed "neglected" or "delinquent." These may include such problems as: lack of support, proof of legal residence, child adoption, contributing to neglect or delinquency of children, and sex perverts—up to the age of 18 years.

Nellie McNichol Sanders is a widow, mother of two sons, David and Robert, aged ten and eight and one-half years, whose husband Howard R. Sanders died eight years ago. She was born on a farm, near Dundas, Ontario. While still a small child her parents moved to Fort Macleod, Alberta, where her father, R. T. McNichol, was postmaster. She received elementary school training there and high school education at Moulton College, Toronto. Later she moved with her family to Winnipeg, receiving her Arts and Law degrees in 1932 from the University of Manitoba. As a law student she articled with a city legal firm, and later went into private practice.

She recalls now, how her father, active and greatly interested in community work, had often urged her to take up welfare work as a profession. She had chosen law but soon found the path she travelled led toward social welfare. She served as secretary to the former Welfare Supervision Board, which functioned for some 25 years by appointment and under the attorney-general in an advisory capacity, investigating problems and making special studies on request. The fields were varied: institutions, organizations concerned with juvenile delinquents, mental defectives, hospital organization, nursing service and deserted wives.

Woman judge appointment stirs some reflections on earlier interest in family courts and those who presided

by AMY J. ROE

More direct contact came, when for a year, Mrs. Sanders substituted for Miss Mildred McMurray, legal representative of the Child Welfare Division of Department of Public Health and Welfare, on leave of absence for study at Columbia University. From that time on Nellie McNichol Sanders was intrigued by the relationship of legal services to the lives of people in social difficulties.

There are at present two men serving as judges in the Winnipeg Juvenile Court, to whom social workers and psychiatrists render service by preparing case studies and reports on individuals appearing before a judge. Of recent years a necessary requirement is that judges have been barristers before appointment. They are civil servants, serving under the pleasure of the Minister and can be summarily dismissed. Whereas other appointments to judgeship are made by the Minister of Justice at Ottawa, acting usually upon recommendation of the attorney-general of a province. The appointments are for life in some courts and in others until the age of 75 years. A judge of county court, court of Queen's bench or court of appeal cannot be dismissed, unless for serious cause. Over the years there have been few dismissals of judges in the three courts mentioned. There has been as yet, no woman appointed as judge to any such court in any Canadian province.

WITHIN a matter of months after the enfranchisement of women in Alberta, the Sifton government appointed Mrs. Emily Murphy police magistrate to preside over the newly created Women's Court in Edmonton, in June 1916, and in December of that year, Mrs Alice Jamieson to a similar post in Calgary. "The honor of becoming the first woman police magistrate in the British Empire was not without its drawbacks and heartaches," writes Catherine L. Cleverdon in her book *The Woman Suffrage Movement in Canada*, "as Judge Murphy was to discover the very first day she presided over her court. Enraged by a stiff sentence imposed upon his client, counsel for the defendant gave vent to his spleen by telling Her Honor that she was not legally a 'person' under the British North America Act and had no right to be holding court anyway. The judge held her peace, relying on the provincial government to prove, if necessary, that she was a 'person'." Mrs. Murphy was one of the five women who carried the appeal that women be declared persons and so eligible for appointment to the Senate of Canada—all the way to the Privy Council. Both of the new judges were experienced in public work, active in women's organizations and did much to stir up interest in the whole matter.

In 1917 Mrs. Helen Gregory McGill was appointed magistrate and judge of Vancouver Juvenile Court, and in Saskatchewan, Miss Jean Ethel MacLachlan, a civil servant specializing in the field of social service, was appointed Judge of the newly organized court in Regina. Twelve years later Miss Edith Louise Patterson, a B.A. graduate in political economy and later a graduate in law, succeeded Mrs. McGill—her friends claimed that she "was the victim of the political axe."

In 1920, a woman trained in the medical profession and with experience in missionary work, Dr. Margaret Patterson, was appointed Judge of Women's Court in Toronto. By 1929 a storm of public opinion was raging around her head as a result of the quashing, by Chief Justice Mulloch, of a sentence handed out by her three years earlier to a man, alleged to be a procurer, "living off the avails of prostitutes." We haven't the full details

nor the ending to that story, nor of the story of those who followed the pioneers. In the interval and up to the present there does not seem to be much available printed material on women judges.

Perhaps they are now too often taken for granted. In the meantime, welfare training courses have flourished in universities. Social science has become more exact and many who have trained in it now occupy posts in government service. Some would fain remove certain types of cases from under the law: the legal fraternity resist the purely "social court," and insist that if a law is wrong it must first be changed, and that we must all live under the law as it stands.

Family; domestic relations and juvenile courts came into being a generation ago on a wave of public enthusiasm and pressure. Once established, interest in the machinery and its working tended to subside. Too often civil servants are left to carry on alone a burden of work for which there is not adequate staff, nor government or public support for extra-remedial work to help those who could be helped after their family or environment history has been exposed in court.

Women's organizations, in particular, have demonstrated their interest in the law and in courts, especially in matters regarding to citizenship ceremonies, property rights and dower laws, during recent years. This could be the right and proper time for getting acquainted with our "social" courts, especially those dealing with juveniles. A re-evaluation would probably show some weaknesses, as well as those parts which have stood up well under the stress and strain of great social changes: the depression and unemployment, war and family dislocation, great influx of immigrants and the present prosperity boom. V

Salt and Summer

PART of the sky has drowned itself in the sea and now the roof of the world is a paler echo of the ultramarine flooring. A spider web of cloud hangs suspended above Marina Island where herring gulls, white against brown sand, drift across the spit or hold raucous conclave near the channel marker. The few taupe juveniles among them almost fade into the background of sunburned grass and faded evergreens. Sometimes it seems as though there were only a space in the white ranks where they are.

But whiter still are the head and rump of the bald eagle whose shadow is a cross of darkness moving silently across grey rock and cornflower sea. A lone harlequin flares up from quiet Indian Bay and waves of the freshening wind chime on the beach. Beyond the light the burgeoning swells break more insistently into spray: quickening responses in the litany of white-topped mountains behind them.

Meadow cornflower, daisy, mimulus, rabbit brush, moonwort and twinflower mingle with summer into a brilliant chorale of color. Ocean spray and foam-flower repeat the water's ripples, fading gradually into the green silence of the woods beyond. Yet those woods are not entirely silent. The robin's robust chirp, the winter wren's light spray of song, the Hermit thrush's swaying melody mingle with the forest stillness of late morning and leave it more complete.

What an exultant feeling wells up in me as I look and listen to this beauty! Exultant because I can see and hear, because I am alive in loveliness. How thankful I should be that through the checkered years I have kept joy in the good and natural things of earth. It is my thanksgiving, my praise to the Creator who sowed such largesse of eternal thought in the garden of the world. Come sorrow, come pain, come loss—it is worth them all and more to have been able to feel right down to my very roots the happiness and splendor of this one day.—Gilean Douglas.



Idle hours in the sun beside water are sheer delight for the young folk.

LE'TS go camping this summer!" my family enthusiastically exclaimed. I paled at the prospect. Visions of myself bent double over a smoky campfire stirring a mess of beans and ashes in a blackened frying pan while fighting off hordes of mosquitoes flashed before me. Thoughts of sleepless nights on the hard ground listening to "little creatures" rustling in the grass made me break out in a cold sweat.

"I'll try it . . . for one week," I promised my beaming family.

Now, after five summers of care-free camping I know that with wise planning and suitable equipment, family camping is the happiest, most satisfying holiday we can have. I hasten to repeat—"wise planning and suitable equipment," for therein lies the secret of successful camping.

My husband, an experienced outdoorsman who has camped winter and summer under a variety of conditions, supervised the buying of equipment. We already owned a metal picnic basket complete with plastic dishes, assorted cutlery, egg lifter, sharp knife, and can opener. To this we added a set of aluminum camp cooking utensils consisting of four kettles with wire bail handles (so kettles can be hung over a campfire or set on a grate) and two frying pans, with removal handles, which double as lids for the kettles. These utensils fit compactly into each other and take only the space of a single kettle, and cost approximately \$10. To protect and keep them free of dust, we purchased a canvas drawstring bag from a war surplus store for \$2. A two-burner portable gasoline stove which folds up like a suitcase was our next purchase (about \$15).

Campfire cooking is not always possible at campsites because dead wood is scarce or fires may be prohibited if the fire hazard is high. When we camp for long stretches of time off by ourselves in the woods, we build a rough table of convenient height on which to place the gasoline stove for cooking. A polyethylene basin for washing dishes and a five gallon stone jug for drinking water completed our cooking equipment—a three-gallon cream can would be ideal for this purpose.

We chose a nine-foot square umbrella tent with sewn-in floor and mosquito screen for sleeping quarters, at a cost of about \$45. This tent can be erected by one person in about ten minutes and four or five persons can use it for sleeping. We hunted through sporting goods stores and war surplus stores to find sleeping bags at reasonable prices. We managed to get two summer weight bags complete with canvas carrying sacks for \$15 each and then bought one grey flannelette sheet for each bag. Some people use blankets for camping, but we found them too bulky for packing and not always warm enough for a sudden change in weather. Our tent has a built-in canvas floor, otherwise a ground sheet or tarpaulin to lay under sleeping bags is a must. Sleeping bags should be aired every few days, for they must be dry to be warm!

OUR ten-year-old son Homer became a most enthusiastic camper and fisherman and so did his friend Dick, who often accompanies us on jaunts. Dick brought along an ingenious sleeping bag made from his grandmother's old eiderdown. An

A Camping Holiday

With wise planning and suitable equipment, summer camping may be a happy and satisfying type of a family holiday

by ETHEL SANKEY

Indian blanket was sewn to one side of the eiderdown to completely cover it. The other side of the eiderdown was covered with a grey flannelette sheet basted in so that it could be easily removed for washing. Two zippers, one to enclose the bottom edges and one on the side made a fine sleeping bag at little cost. A white flour sack served as a carrying bag.

We bought two rubber air mattresses, the kind you inflate. Our young campers fell asleep so quickly when they "hit the hay" that air mattresses for them would be unnecessary luxury. These cost about \$7 each. We later found that this sleeping equipment had a home use. The tent was pitched in the yard to serve as an extra bedroom when summer visitors arrived. The inflated air mattresses also made fine lawn seats for reclining.

We found that we learned new tricks every day out, such as pulling out the stopper from air mattresses before rising, letting our body weight deflate them. A mattress partly filled with air is unmanageable for packing and takes too much space. When Homer was small I had a great fear he would wander off into the bush and get lost, so we bought a boy scout whistle for him to wear on a cord around his neck. We practised many times having him walk off a short distance into the bush, blow his whistle three times—wait—blow again and not move from the spot. He never had to use his whistle in a real situation but I have had confidence that he would know what to do.

Outdoor living produces healthy, hearty appetites. I estimate food supplies at almost double the amount the family would consume at home. A large metal suitcase became our

"grub box" and into it went canned goods such as soups, vegetables, tinned meats, stews, chicken, fruit juices—for these are the foods that can be safely carried under all conditions and quickly prepared. So it's a holiday for mother, too. A metal or sturdy wooden box for storing food will keep squirrels and porcupines from helping themselves.

When we leave home in the morning we often take along sandwiches, a vacuum bottle of coffee, fresh fruit and cookies. En route to the campsite we pull over to the roadside for a quick lunch. For our first supper in camp I have usually prepared beforehand a pot of stew which only has to be heated or if the weather is unusually warm we take along meat pies and salad greens.

At public campsites we obtain fresh meat and milk each day, but if we camp in an out-of-the-way place we rely on fresh caught fish, tinned meats and canned milk. We include a package of instant potatoes which with milk and water added make appetizing whipped potatoes. We also carry macaroni and quick-cook rice to substitute for potatoes.

We take along sturdy camp clothes—two complete outfits for each, extra T-shirts and one dress-up outfit to wear in any town we may visit. We include a warm jacket, swim suit, raincoat and rubbers as well.

OUR first trip was to the campsite at Big Whiteshell Lake about 180 miles northeast of Winnipeg, where camp grounds are maintained by the Manitoba Government. So that we wouldn't forget any item, we spent the two previous days assembling our equipment in the back hall and filling the grub box. Packing the car was

(Please turn to page 69)



Stopovers at campsites are inexpensive and pleasant features of auto trips.

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What Makes a Meeting Go?

A man from the East, Don Graham explained some useful ideas and techniques to a western annual meeting of Home and School delegates

by RUTH GILL

and aid in clear thinking. They will go far toward forming a firm, clear statement of plans and aims.

He advocated that before an organization adopts new ideas it should study closely its present program, noting the strengths and weaknesses, and in future steer clear of the stereotype ideas which usually only bog down efficient and interesting operation. For instance:

1. The same meeting patterns should not be repeated year after year.
2. Don't invite a big name speaker who can offer little but entertainment in his talk to the club. The quality of the meetings should not be sacrificed for a large attendance.
3. Don't plan an evening with the idea that people must be entertained . . . i.e., hear talks on gardening, hobbies, travel. Only if these topics develop the theme of the evening is their use advisable.
4. Keep the aims and objectives of the organization definite and clear.

A recent study of the indifference and apathy in organizations showed that members do take an active interest in their club if they are given a part in the attempt to reach a goal.

On this result Mr. Graham based his suggestions for healthier, ever-enlarging organizations:

Big program committees are most effective. Do not limit the number to two or three persons, rather have five or six. Responsibilities may be shared still further by having the committee phone others in the club to get opinions of a certain proposed program idea. In this way the new member especially can share in the pride of having taken part in planning the group's activities.

Be alert to current and controversial topics. The committee should keep abreast of radio talks, television programs, press and magazine articles which might be referred to for discussion at future meetings.

Make use of the interview system. If the guest speaker will consent to

answer questions at the close, have blank cards circulated before the meeting. Ask the members to jot down during or after the speech, points they would like the speaker to discuss further. The cards are collected, and sorted by the chairman. There probably will be a number of questions touching on the same phase. The chairman then interviews the speaker in a friendly across-the-table manner. He may read the questions, or take the general thought or argument and present it in his own words. This method often brings good suggestions from persons too timid to stand up and ask them.

HAVE a question box. Invite the members to submit ideas via this silent assistant. Place it in plain sight, and make certain the chairman knows the exact location so he can properly direct members to it.

Have a phone reporting system. A number of persons could be given two or three questions about the evening's program, and asked to phone six others who attended, reporting opinions back to the program committee.

Use evaluation sheets. At the start of the meeting hand out questionnaires prepared in advance. Keep the questions as simple to fill in as possible . . . ask those present to tick off their rating of the meeting . . . good, fair, or poor. Half-sheets seem to bring better results than full-page sheets. Leave space at the bottom of the sheet for further comment. At the close of the meeting, ask the members to indicate their impressions of the program, and to hand in the sheets, unsigned.

Mr. Graham described how this idea was used at his community's Home and School meetings. The evaluation sheets for the year are saved and reviewed by the program committee at the end of May. This gives an indication of what would make for popular programs in the next term. Last May the Forest Hill group found that parents wanted to know more about school curriculum. In the autumn, after school-opening, the parents were invited to have talks with individual teachers about curriculum of any given grade. In November the various school principals participated in a panel discussion, "Curriculum and Its Problems."

Act out the role. If the Home and School Association is bothered by a particular problem, the members might act it out, briefly and unrehearsed, being careful to select players who are not of temperament similar to the persons involved in the actual situation. Several groups might undertake to depict the same incident. In this way the parents could see how differently one situation can be interpreted, and perhaps solved.

Make use of films. Many schools have a movie projector, and in various provinces most film councils loan or rent out educational films which can be of great value to the group. It is

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THE guest speaker for a moment studied the handful of slips of paper containing questions written by members of the audience following his talk. "Here's one," he told the assembly, "wanting to know how to get fathers to attend the Home and School meetings. And another," he paused, looking a little surprised, "this one says simply 'How do you attract men?'"

The large gathering of delegates broke into hearty, good-natured laughter. It was laughter that came easy and often when this particular speaker had the floor.

The occasion was the annual convention of the Manitoba Home and School and Parent-Teacher Federation during the last week of March, 1957. The guest speaker was Don Graham, Director of Education, Forest Hill Village, Toronto, who had been invited to discuss Program Planning. The keynote of his talks was "greater participation by the membership."

The audience may not have realized it at the time, but he was putting his theories and techniques into practice. The delegates participated and the sessions moved along in a lively fashion under the master touch of a man who knew just what he wanted from them. They may have been strangers on arrival . . . they parted on smiling terms, united in purpose and aiming at one goal.

Mr. Graham comes from a rather unusual community where such ideas on group participation are well received and put into practice. Forest Hill Village, on the outskirts of Toronto, has a population of 20,000 quite well-to-do citizens. It has five schools — three elementary, a junior high, and a senior high—an admirable record of 85 per cent of its graduates going on to college, and a history of outstanding co-operation between home and school.

THE Forest Hill school system follows the theory that a child cannot be properly educated unless the teacher knows much about the family and home. To encourage this, on the last Monday of each month the classes close at 2:30 p.m. after which all the parents are invited to visit the school to discuss with the teachers progress of their child's education, and any small personality problems.

Regular conferences of teachers, principal, and psychologists deal with cases where it is obvious that a student is not getting on as well as he should. Before making a decision, the group hears a medical report on the child. The story of that community, its school and administration is told in the book *Crestwood Heights*, published by University of Toronto Press.

He spoke in Winnipeg specifically to the Home and School convention, but the ideas that educator Graham put forth merit the attention of leaders, local or provincial, of any organization. They are new and workable at any level, will add zest to meetings,



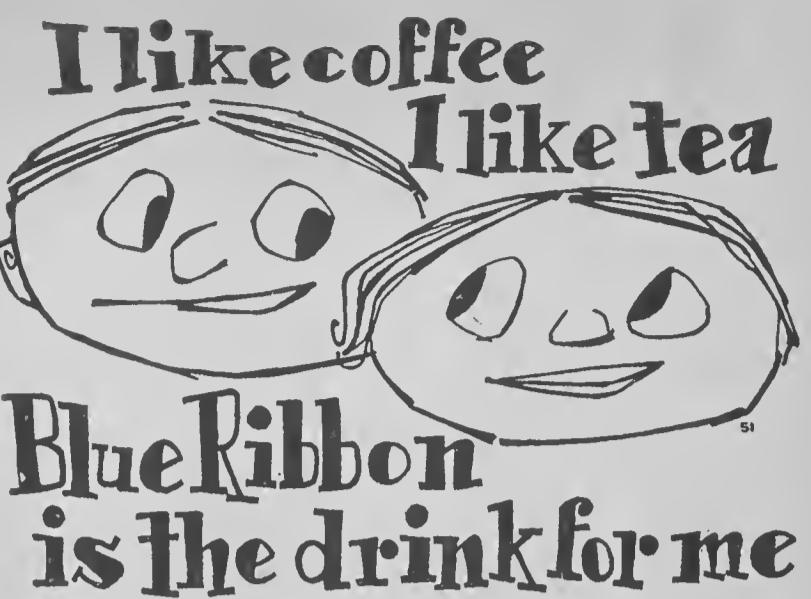
Don Graham of Forest Hill Village.

a good plan to place an order well in advance of the proposed showing. Before a film is shown, tell the audience what they should be alert to and note for later discussion.

Panel discussions can be very interesting and stimulating, provided they deal with a topic allied with the organization's work. One of the delegates described a panel discussion which had caused quite a stir in his association. The topic was "Is Elvis Presley breaking up our homes?", with the school principal, a teen-ager, a radio announcer, and a parent taking part. "The panel members and audience became so agitated that it wouldn't have surprised anyone," reported the delegate, "if one of the

panelists had turned to another and shouted, 'You ain't nuthin' but a hound-dog.'"

Many clubs have found that the following method gets a meeting off to a good start: The gathering is divided into small groups or committees of equal size, no more than six in each group, right in the assembly room. Each group chooses its chairman and secretary, and is given six minutes to discuss a specific question. Allow a few minutes for the ideas to be sorted, and for the secretary to list one or two leading points raised. The secretaries then report for the groups. The informality and competition of this plan usually brings forth some inspired suggestions and solutions. ✓



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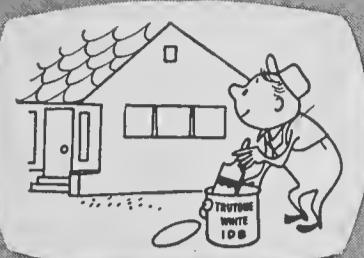
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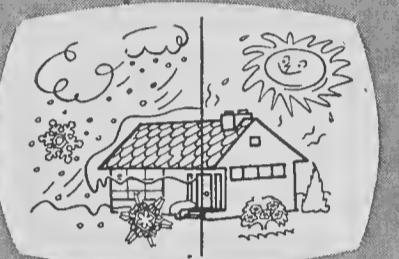
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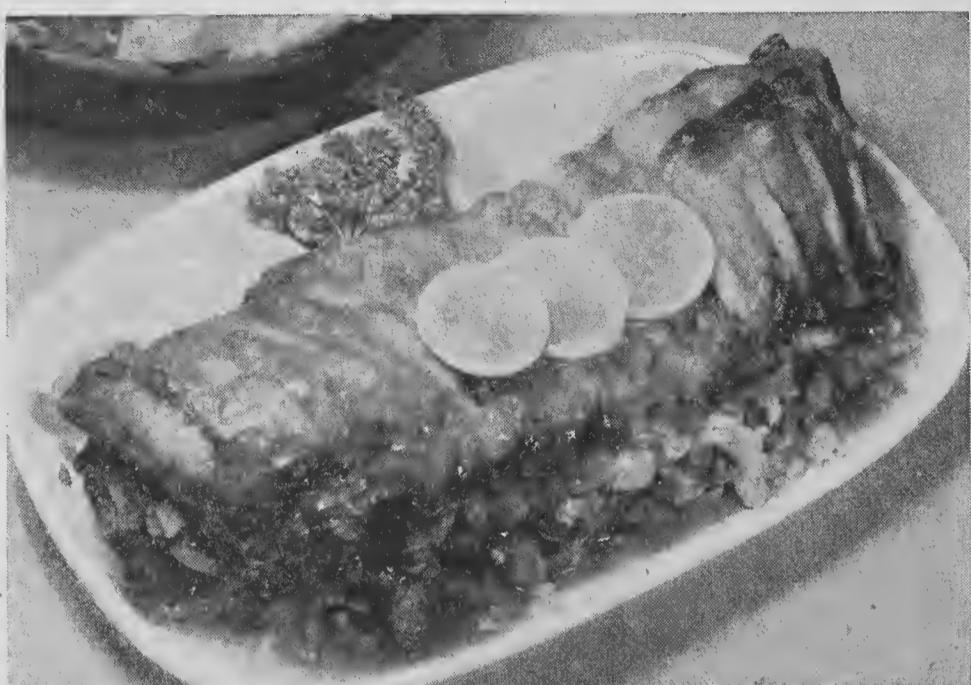
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On Meat Cookery

Introducing a new cook book issued from Canada's kitchen
and quoting some of the recipes contained therein

by PHYLLIS A. THOMSON



Stuffed spareribs served with sweet and sour sauce, suited to a special meal.

OF the many new cook books being introduced, one has come to our attention which we feel is particularly worthy of consideration. It is entitled "Meat—How to Buy, How to Cook" and has been prepared by the home economists in Canada's Kitchen, Department of Agriculture, Ottawa. A paper-backed, 80-page booklet, it presents in a clear, concise manner, the complete subject of meat cookery. Several years' research and extensive experimental work have gone into its production, to make it one of the most informative cook books of its kind.

It contains up-to-date information on meat grading, buying points and cooking instructions for various types of cured and smoked meats. Also included are effective illustrations, clear-cut meat charts of beef, pork, veal and lamb, actual photographs of many retail cuts of meat and over 50 tested recipes. One section is devoted to frozen meats and includes tips on packaging, guide to length of storage, thawing and correct cooking times.

"Meat—How to Buy, How to Cook" should be a welcome addition to every Canadian homemaker's library. New brides and newcomers to Canada should find it especially useful, helping them to recognize cuts of meat available and guiding them in choosing the best methods of preparation for each cut. To obtain a copy send 50 cents to Queen's Printer, Hull, Quebec, and ask for publication 971, "Meat—How to Buy, How to Cook."

Jellied Veal and Pork Loaf

2 to 2½ lbs. veal shank	1 tsp. celery salt
1 to 1½ lbs. pork hocks	2 T. chopped parsley
6 to 8 c. hot water	2 T. vinegar
2 bay leaves	1 c. finely diced celery
3 to 4 pepper berries	½ c. finely diced green pepper
1 to 2 tsp. salt	1 hard-cooked egg
2 T. chopped onion	

Cover meat with hot water. Add bay leaves, pepper berries, salt, celery salt, onion and parsley. Cover closely and simmer until meat falls from bones (1½ to 2 hours). Skim off fat. Strain stock and boil down to 2 c. Trim meat from bones

and remove excess fat. Pull meat into small pieces with fork. Combine meat, vinegar, celery and green pepper. To make a garnish with egg slices, cover bottom of loaf pan (approximately 9 by 5 by 3 inches) with thin layer of cooking liquid. When partially set, place egg slices in bottom of pan and allow to set until firm. Add meat mixture to remaining cooking liquid and cool until it begins to thicken. Pour into loaf pan and chill until firm. Unmold and serve. Makes 6 to 8 servings (2 to 3 half-inch slices).

Baked Spareribs

Use two pieces side spareribs (1½ lbs. each). Sprinkle with salt and pepper. Place one piece, hollow side up, on rack in shallow roasting pan. Spread with well-seasoned bread or apple stuffing. Cover with second piece placed hollow side down. Skewer or tie ribs together. For individual servings cut spareribs in 3-inch pieces, 5 to 6 ribs each, stuff, roll and tie. Bake uncovered in center of moderately hot oven (325° F.) for 2 hours. Makes 4 to 6 servings.

Sweet and Sour Spareribs

Add cooked spareribs to Sweet and Sour Sauce and simmer slowly until sauce is thick and transparent.

Sweet and Sour Sauce

¼ c. brown sugar	¾ tsp. chili powder
3 T. cornstarch	1 clove garlic, halved
¼ tsp. dry mustard	5 T. vinegar
⅛ tsp. ginger	1 c. tomato juice
1 tsp. salt	1 c. water
1 tsp. soy sauce	

Mix brown sugar, cornstarch and seasonings. Add garlic, vinegar, tomato juice and water and mix well. Simmer 10 minutes until thickened, stirring constantly. Remove garlic and add soy sauce. Makes 2 cups.

Lamb Kabobs

1 lb. boneless lamb	2 T. vinegar
2 T. salad oil	1 tsp. salt
½ tsp. mustard	3 med. tomatoes
1 clove garlic, minced	2 med. onions OR 12 whole pickled onions
1 tsp. curry powder (optional)	12 med. mushroom caps

Cut lamb in 1-inch cubes. Let stand 1 hour in marinade of salad oil, vinegar, mustard, salt, garlic and curry powder. Cut tomatoes in quarters and raw onions in thick slices. Make kabobs by placing alternate pieces of lamb, mushrooms, tomatoes and onion on 6 metal skewers. Brush vegetables with oil and sprinkle



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with salt and pepper. Broil kabobs in preheated broiler 3 inches from heating unit, 5 to 7 minutes each side. Makes 6 kabobs.

Meat Ball Stew

1 1/2 lbs. minced beef	1 egg
1 tsp. salt	2 T. milk
1/4 tsp. pepper	2 T. finely chopped onion
1 T. Worcester shire sauce	5 T. flour

Mix meat, seasonings, egg, milk and onion. Shape into 2-inch meat balls. Brown meat well in small amount of fat about 10 minutes. Sprinkle with flour and brown again lightly. Make into stew using the following:

6 small onions	2 tsp. salt
6 med. carrots, cut in 2-inch pieces	1/8 tsp. pepper
6 med. potatoes halved	2 T. chopped parsley
4 to 5 c. vegetable liquid	1/2 tsp. nutmeg
	1/2 lb. sliced mushrooms

Partially cook vegetables about 10 minutes, in salted water to cover. Add vegetable cooking liquid and seasonings to meat balls and stir well. Add vegetables. Cover closely and simmer 20 minutes. Sauté mushrooms in small amount of fat, about 5 minutes and add to stew just before serving. Makes 6 servings.

Quick Chow Mein

2 c. cooked pork or beef, cut in 1/4-inch strips	4 T. fat
2 c. celery, sliced diagonally 1/4-inch thick	1/2 c. chicken broth
2 c. sliced mushrooms	1 T. cornstarch
2 c. sliced onion	1 tsp. salt
1/2 c. sliced green pepper	2 tsp. Worcester-shire sauce
	1 28-oz. can drained bean sprouts
	1 T. soy sauce

Sauté pork, celery, mushrooms and onion in fat 7 to 8 minutes. Add green pepper and sauté 2 to 3 minutes longer. Thicken broth with cornstarch and add salt and Worcester-shire sauce. Add thickened broth and bean sprouts to meat and vegetables and toss mixture lightly with fork. Cover and heat 5 minutes longer. Add soy sauce, sprinkle with Chinese fried noodles and serve immediately with cooked rice. Makes 5 to 6 servings.

"Tourtieres" (Pork Pies)

3 lbs. minced lean pork	1/3 to 1/2 c. finely chopped onion
3/4 to 1 c. boiling water	1 1/2 tsp. salt
	1/8 tsp. pepper

Simmer pork in water 5 minutes. Add onion, salt and pepper and simmer until meat is white, about 10 minutes. Cool and skim off fat. Line 3 nine-inch pie-pans with pastry. Divide meat evenly and place in pans. Cover with pastry. Bake in very hot oven (425° F.) about 30 minutes. Makes three 9-inch pies.

Beef and Kidney Pie

1 to 1 1/4 lbs. beef kidney	3 to 3 1/2 c. hot water
1 lb. boneless stewing beef	3 whole cloves
1/3 c. chopped onion	1/2 tsp. mixed pickling spices
4 T. fat	2 tsp. salt
1/2 c. flour	1/8 tsp. pepper

Soak kidney one hour in cold, salted water (1 T. salt to 4 c. water). Remove white membrane and cut lobes away from fat and tubes. Cut in 1/2-inch pieces. Cut beef in 1-inch cubes. Brown onion and beef in 2 T. fat and remove from pan. Brown kidney, 1/2-lb. at a time in 2 T. fat 5 minutes, over high heat. Combine browned meats, sprinkle with flour and brown again. Add hot water to cover; stir well. Add cloves and pickling spices tied in cheesecloth, onion, salt and pepper. Cover closely till tender, about 2 hours. Remove spices. Place meat in greased casserole. Cover with pastry or biscuit dough and bake in hot oven (425° F.) 35 to 40 minutes. Serves 6. ✓



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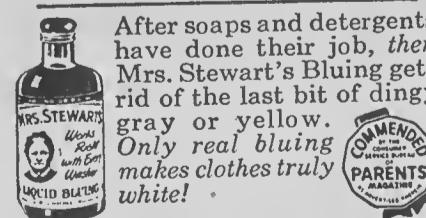
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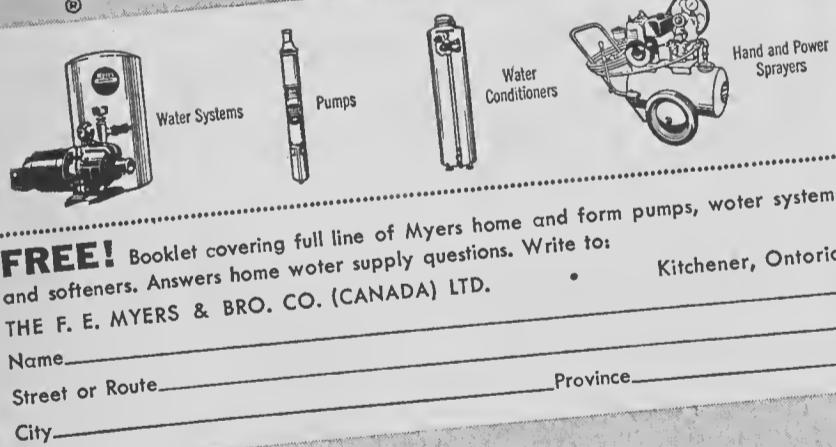
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Which is an intangible gift of good will—but observe the manner of response of many, when being offered one

by MAY RICHSTONE

"HOW sweet you look." I murmured admiringly to Carol, the little girl who lives next door, as she emerged from her house all scrubbed and polished, starched and prim. An hour earlier, she had been making mudpies.

"And how clean and fresh!" I added.

"I know," she replied serenely, "I always look this way."

I gasped, smiled and mentally filed her answer away for future reference. The next time a compliment fell upon my sceptical ear, here was a whimsical reply ready-made.

How do you receive a compliment? What do you expect from a compliment you pay? Haven't you sometimes felt rebuffed and resentful, almost convinced that your well-meaning words were a mistake?

A compliment is like a gift, an intangible gift of good will. And gifts should be graciously received. This is an art people seem to find difficult to acquire. A gruff "Thanks! You should not have done it!" must all too often substitute for the appreciative words that stick in the throat. Apparently it is not only better to give than to receive, but easier.

Try an experiment, if you're sceptical. To the next ten people you meet, say with enthusiasm, "How well you look today!"

Try them on Sylvia, for example. "How can you say such a thing?" she demands, affronted. Out bubbles her whole medical history. By the end of her recital, you have decided to think twice before paying her another compliment.

Sylvia's reaction may be extreme. But disbelief and reproach are standard retorts to innocent compliments. "Not really," Dorothy snaps. "I have such a headache, I can't see straight!" Or, "Don't be silly," she scoffs. "I look like a wreck." Her tone implies that if your judgment isn't deficient, then your eyesight must be.

Helen stiffens and gives you a piercing glance of suspicion that seems to demand, "Which is it now? Do you want to borrow money, or to ferret out information that is none of your business?" Or she brushes off your words as beneath her attention; if you don't know better, her manner intimates, she'll do you the kindness to ignore your social lapse.

When Marilyn hears the words, "How well you look today!" she scents some underlying disparagement. "Why?" she frets. "Did I look so terrible the last time you saw me?"

"Do you mean it?" Cynthia will be full of tremulous doubt. "Could anyone possibly look well, with all my

Truth, after all, wears a different face to everybody, and it would be too tedious to wait till all are agreed. Truth is said to lie at the bottom of a well, for that very reason, perhaps, that whoever looks down in search of her sees his own image at the bottom, and is perhaps persuaded not only that he has seen the Goddess, but that she is far better-looking than he had imagined.—James Russell Lowell.

troubles?" Now comes the avalanche of her woes, followed by resentment that you should dare to pry into her personal affairs.

Susan will be as flustered as if you had told her her slip was showing. Hastily she will begin to baffle on other topics, as though you had rattled a skeleton in her closet.

Try any other type of compliment and only too often you'll discover that you utter a pretty phrase at your peril.

"What a lovely dress," you might murmur, only to have your opinion belittled by the classic, "This old thing!"

"Your living room is charming," you might tell your hostess.

"I hate everything in it," she'll answer crossly. "We bought this stuff before we knew a thing about interior decorating. I wish it would wear out!"

Four out of ten women, perhaps, might accept a compliment in good grace, casually. The others seem to do a superb job of disguising that grateful glow.

Why is it so difficult to take a compliment in stride? Why should it embarrass us, as gifts often do, and make us feel awkward, inept? There might be merit, perhaps, in anticipating such situations and rehearsing an answer or two.

My favorite is the one used by my little niece, Diane. "Thank you," she has been coached by her parents to answer demurely. "I think you're very pretty, too!" This bit of preparation takes a four-year-old out of the realm of the inarticulate into the realm of social poise. We all quote her now. It is such a popular answer, leaving everyone in good spirits.

And why not the return of the compliment, as in the response, "How nice of you to notice and to tell me! You know just what to say to make people feel good!"

Or why not the light touch, in preference to an ungracious response? If we must reject flattery, let's at least retain our sense of humor.

"Either you or my mirror is lying," one of my friends will scoff. Or she'll warn me, with a chuckle, "Don't say that in front of my husband. I'm trying to persuade him I need a vacation."

And there is the girl in my husband's office who admonishes a flatterer, "Don't give me compliments. Give me gifts, instead!"

When someone tells my husband, "You're looking well," he likes to shake his head and sadly assert, "Impossible! Not with the wife I have to endure!"

Sheer whimsy, I hope!

v

Using Marshmallows

A food which blends well in many tasty combinations for plain and fancy desserts or delicious confections

MARSHMALLOWS are enjoyed by young and old alike. Fluffy and light, children love them plain while adults often prefer them combined with other foods. Marshmallows are fun to toast at picnics, hikes or wherever there's an open fire. As an ingredient in candy, desserts, toppings or children's novelties, they add a creamy texture and delicate flavor.

Originally marshmallow was made from the althaea or marshmallow plant which grew in the swamp lands of the Nile Valley. When the roots were dried and pulverized they yielded a glue-like substance along with some starch and sugar. Today marshmallow is made from several types of sugar, syrup and gelatin, whipped together for 15 minutes, then poured into starch molds and allowed to set. From the curing room, marshmallows are knocked out of the molds and put through a shaking process to remove all the starch. Finally, they are dusted with a special sugar-starch powder after which they are ready for packaging.

There are numerous uses for marshmallows. Frozen salads and desserts, ice creams, custards, sauce specialties, candies and party favors are some of the most common ways to serve them. Not only are marshmallows delicious, they are a source of energy and body-building protein.

To cut marshmallows quickly, use scissors, preferably serrated kitchen shears. Dipped in hot water, the scissors cut marshmallows easily, without sticking. Miniature marshmallows are available now and can be used to advantage in most recipes. They are already in small pieces and need no further cutting.

Frozen Chocolate and Marshmallow Favorite

1/2 c. milk	2 c. miniature marshmallows
1/2 c. sugar	
1 1-oz. square unsweetened chocolate	1/2 tsp. vanilla
	1 c. heavy cream, whipped

Place milk, sugar and chocolate in top of double boiler. Heat, stirring occasionally, until chocolate is melted and mixture is smooth, about 10 minutes. Cool

to room temperature. Fold chocolate mixture, marshmallows and vanilla into whipped cream. Pour into a refrigerator tray and freeze firm.

Marshmallow Sausage Cakes

1 lb. fresh sausage	4 c. grated sweet potato
2 tsp. salt	12 marshmallows

In a bowl combine sausage, sweet potatoes and salt. Shape mixture into 12 cakes. Place in cold skillet and put over low heat. Fry slowly until cakes are browned on one side. Turn; top each browned side with marshmallow. Continue frying until cakes are thoroughly done (about 25 minutes) and marshmallows are melted. Serve immediately.

Marshmallow Cloud

Empty contents of a package of chocolate cake mix into mixing bowl; fluff with fork. Measure 8 oz. (1 c.) water. Add half water (4 oz.). Mix until free from lumps. Add remainder of water slowly, mixing smooth after each addition. Batter will be thin. Pour into greased angel cake tin. Bake in a moderate oven (350° F.) for 35 to 40 minutes. Cool 5 minutes before removing from pan. Ice cold cake with Marshmallow Frosting.

Marshmallow Frosting

2 egg whites	1/3 c. water
1 1/2 c. sugar	1/2 tsp. vanilla
Few grains salt	extract
1/4 tsp. cream of tartar	1 c. cut-up marshmallows

Combine egg whites, sugar, salt, cream of tartar and water; place over boiling water. Beat with rotary beater about seven minutes or until frosting holds shape. Remove from boiling water. Add vanilla and marshmallows.

Chocolate Marshmallow Souffle

3 T. butter	3 1-oz. squares unsweetened chocolate
3 T. flour	3 eggs, separated
1/4 tsp. salt	1 tsp. vanilla
1 c. milk	
1/4 c. sugar	
32 marshmallows	

In a saucepan, melt butter; blend in flour and salt. Add milk and cook over low heat, stirring constantly, until thickened and smooth. Add sugar, grated chocolate and marshmallows; stir until chocolate and marshmallows are melted. Remove from heat. Beat egg yolks. Add egg yolks and vanilla to chocolate marshmallow mixture and mix well; cool. Beat egg whites until stiff but not dry. Fold egg whites into cooled chocolate mixture. Turn into 1 1/2-qt. casserole and place in



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Delightful Danish Pastry Stars



DANISH PASTRY STARS

Measure into bowl

1/2 cup lukewarm water

Stir in

1 teaspoon granulated sugar

Sprinkle with contents of

1 envelope Fleischmann's Active Dry Yeast

Let stand 10 minutes, THEN stir well.

Meantime, sift together into bowl

2 3/4 cups once-sifted all-purpose flour

2 tablespoons granulated sugar

1/2 teaspoon salt

Shred on medium shredder

1/2 pound chilled butter or margarine

and stir into flour mixture.

Beat well

1 egg

and stir in dissolved yeast.

Make a well in flour mixture and add yeast mixture; combine thoroughly.

Chill until firm, about 1 hour. Turn out dough on lightly-floured board or

canvas. Roll out dough to a 15 x 25-inch rectangle; cut into fifteen 5-inch squares. Spread each square thinly with thick raspberry jam.

Fold 1/3 of square over, then over again.

Cut five slashes along one side of dough to within 1/3 inch of other side. Form into a circle, separating at slashes to form a 6-point star. Place pastries on cookie sheets; chill about 1/2 hour. Brush with slightly-beaten egg. Bake in a hot oven, 450°, until golden—7 to 10 minutes. When cold, spread stars, if desired, with following icing:

Combine 1 cup once-sifted icing sugar and 1/8 teaspoon vanilla; mix in sufficient milk to make a stiff icing.

Yield—15 pastries.



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pan of hot water. Bake in moderate oven (350° F.) 1 hour or until done. Serve warm or chilled with cream or custard sauce.

Angel's Delight

16 marshmallows	1 c. crushed
12 maraschino cherries	pineapple
½ c. nuts	½ pint whipping cream

Heat marshmallows with crushed pineapple in top of double boiler until they are melted, but fluffy. Fold in sliced cherries and chopped nuts. Chill until mixture begins to congeal. Fold in cream, whipped until very stiff. Freeze without stirring. Serves 6.

Blushing Bunny

1 c. whipping cream	1 c. sliced frozen strawberries
¼ tsp. ground cinnamon	10 to 12 lady fingers
16 marshmallows	

Sprinkle cinnamon over cream. Whip until cream is stiff. Fold in marshmallows cut in sixths. Chill ½ hour. Then fold in partially thawed or fresh sugared berries. Pile into dessert dishes, tucking halved lady fingers around edge. Serves 6 to 8.

Foolproof Fudge

32 marshmallows	¼ c. water
2½ c. granulated sugar	¼ tsp. salt
1 6-oz. can evaporated milk	1½ 6-oz. pkgs. (1½ c.) semi-sweet chocolate bits
½ lb. (½ c.) butter	

In top of double boiler, combine marshmallows and water; place over boiling water and cook until marshmallows are completely dissolved, stirring occasionally. In a large, heavy saucepan, combine sugar, butter, milk and salt; mix thoroughly. Bring to rolling boil over medium heat. Continue boiling 8 minutes, stirring constantly. Remove from heat and stir in melted marshmallow mixture and chocolate bits. Mix until thoroughly blended. Pour into greased 8 by 12-inch pan. Cool thoroughly and cut into squares. If desired, add 1 c. chopped nuts, coconut or glace fruit to fudge before pouring into pan to cool.

Marsh Cola Refresher

24 marshmallows	2 T. lemon juice
2 c. chilled cola beverage	Grated rind of 1 lemon
½ tsp. salt	

Place marshmallows in saucepan with 2 T. cola. Heat slowly, folding until marshmallows are half melted. Remove from heat. Continue folding until mixture is smooth. Cool slightly. Blend in remaining cola, lemon juice, and rind. Serve mushy or firm. Garnish with tiny wedge of lemon and sprig of mint. For variety try root beer instead of cola. Serves 5 to 6.

Chocolate Velvet Sauce

2 oz. bitter chocolate	½ c. sugar
24 marshmallows	¼ tsp. salt
½ c. water	½ tsp. vanilla

Heat water and sugar in saucepan until sugar is melted. Add chocolate and marshmallows. Cook until smooth, turning over and over. Remove from heat, add flavoring. Use hot or cold on cake, puddings, ice cream.

Tiny Tot Treats

For dessert try this. Cover one slice of raisin bread with tart jelly and sliced bananas. Butter other slice lightly and cover with marshmallows, cut crosswise. Pop this slice under broiler until marshmallows are delicately toasted. Quickly put the two slices together and serve at once—be prepared for seconds!

Cotton Tops

Here's an idea! Just before removing chocolate cup cakes from the oven, place halved marshmallows (cut crosswise) cut side down, over top of each cake. Return to oven only long enough to melt marshmallows slightly. Serve warm.

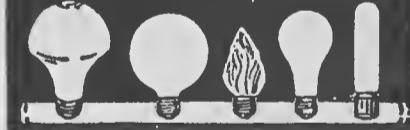


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THE FIRST AID KIT IN A JAR

A Camping Holiday

Continued from page 60

done in one operation. Into the trunk went sleeping bags, tent, air mattresses, grub box, cooking utensils, fishing rods, tackle box, stone jug filled with drinking water, first aid kit, portable ice box, bag containing swim suits, soap and towels, dirty clothes bag, gasoline stove and funnel, tin of hi-test gasoline, small shovel, two suitcases of clothes. In the back seat we put picnic basket containing lunch and dishes for the road, bag packed with raincoats and rubbers for each of us, binoculars, fly bomb and whisk broom for keeping tent floor and car clean. This scheme of packing we found convenient for our needs and have never varied it.

We got away from home about ten o'clock as last-minute arrangements for the family cat, mail and milkman had to be made. We drove leisurely down No. 1 highway and stopped for lunch on a height of granite rocks about five miles west of Rennie. A saucy family of chipmunks gathered around to share crumbs. Camera enthusiasts revel in the beautiful flowers to be found at this spot—marsh marigolds, hoary puccoon, saxifrage, Labrador tea and colt's foot, and the many colorful lichens growing on the rocks, not to mention the deer, porcupine and grouse glimpsed every so often.

As we had chosen Thursday for our departure from home, we had a good choice of campsites on the lakefront before week-end campers arrived. Everyone has a job when we set up camp. First we all helped unpack the car, then while my husband and I put up the tent, the boys blew up air mattresses and unrolled sleeping bags. When the camp was shipshape, we donned swim suits for a refreshing dip and a lazy rest in the sun. We had good appetites for the beef and kidney stew, the Irish potato loaf, fresh fruit, tarts and tea. After supper the boys took a second swim, then toasted marshmallows over a campfire shared with other children in the camp.

We sat around the dying embers of the campfire and talked with families who had come to spend their entire two-week holiday at this spot. Others were only stopping overnight, leaving next morning for a pre-arranged

campsites in the chain of auto camps which stretch across Canada and United States. We met an Alberta farm family who had planned to tour Canada from coast to coast, each year visiting a new section of country. One family with three children had already accomplished this and told us of camping facilities they had found in their wanderings.

IN the Maritimes campsites equipped with kitchen shelters, toilets and water were located at Cape Breton Highlands National Park. At Cavendish Bay in Prince Edward Island and Fundy National Park in New Brunswick very attractive camping areas are to be found. Travel bureaus of Maritime provinces list all campsites and give information regarding them.

Good campsites are found in provincial parks in Quebec and in Laurentide Park and smaller campsites throughout the Gaspe area. A charge of fifty cents is the going rate at Quebec's camps.

Ontario has nearly one hundred camping places with Rushing River camp near Kenora particularly fine. A list of these locations can be obtained from Department of Highways, Ontario Government.

On the prairies campsites are fewer. In Manitoba, Riding Mountain National Park fifty miles north of Brandon makes a good stop en route to Saskatchewan's Duck Mountain, Good Spirit Lake or Cypress Hills Park. In Alberta the traveller can find about fifty small camp grounds supervised by the provincial government as well as the famed national parks at Jasper, Banff and Waterton Lakes.

In British Columbia numerous fine campsites form a network across that scenic province. The B.C. Travel Bureau publishes a booklet describing all such facilities.

Since our first camping trip to Big Whiteshell Lake we have camped through western Canada to the Rockies and in the northwestern States. For an initial cost of approximately \$125 we have camp equipment that, with care, will last ten or fifteen years. From then on our family holiday has cost us little more than living at home. Our camping activities have paid big dividends in good health, we have gained an intimate knowledge of our country and shared happy times together. V



Highways stretching into the distance offer invitation for new experiences.

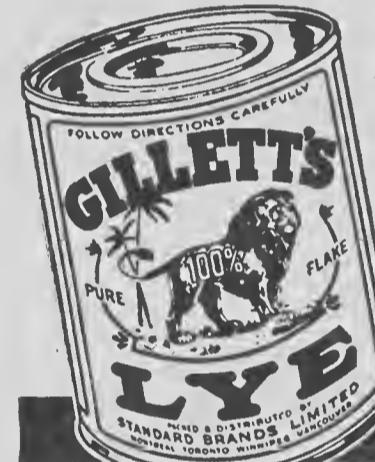


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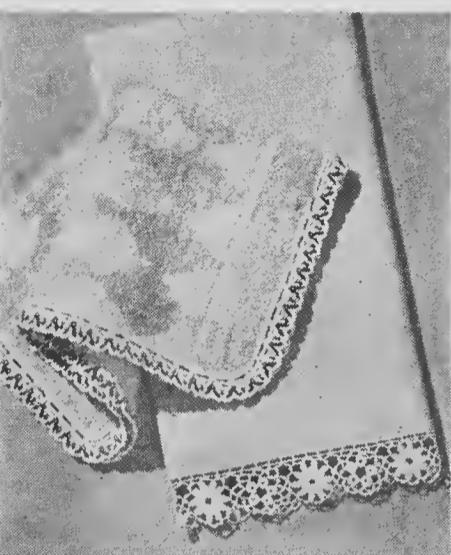
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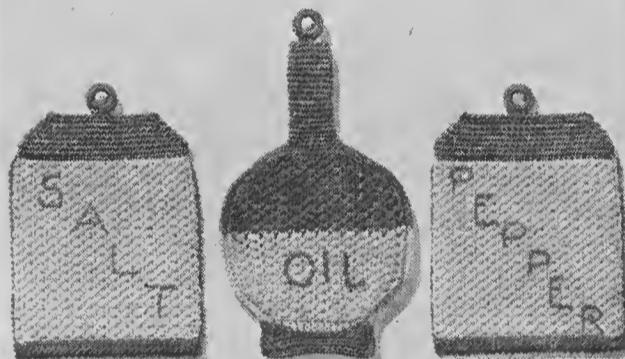


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Add a decorative touch to guest towels, washcloths or pillowcases with these attractive edgings. One is based on ring and flower motifs while the other is scalloped. These crocheted edgings make ideal "pick-up" work for odd leisure moments. Materials required for scalloped edging shown on washcloth: 1 ball each of white, yellow and black cronita cotton, steel crochet hook No. 7, washcloth. For ring and flower motifs shown on guest towel: 1 ball No. 9 yellow, and 1 ball white tatting cotton, size 70, crochet hook No. 14 and a guest towel. Design No. C-S-522. Price 10 cents.

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balls white or 5 balls ecru crochet cotton, size 30. Note: This amount is sufficient for set consisting of 1 large doily about 12 by 15 inches and 2 smaller doilies about 9 inches in diameter. Design No. C-7406. Price 10 cents.

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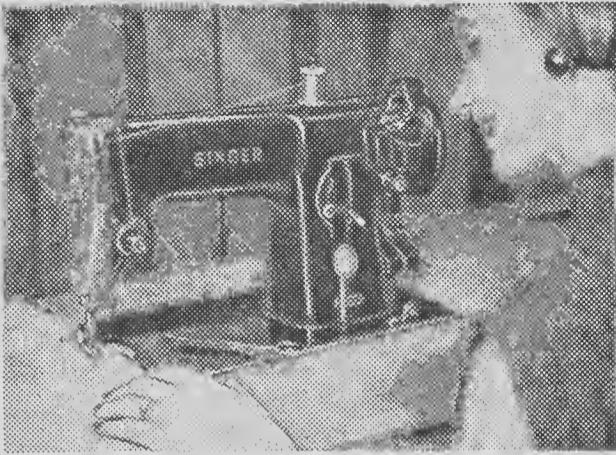
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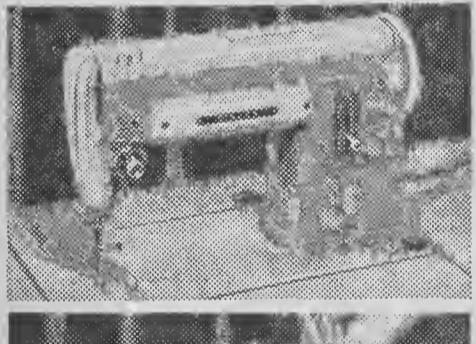
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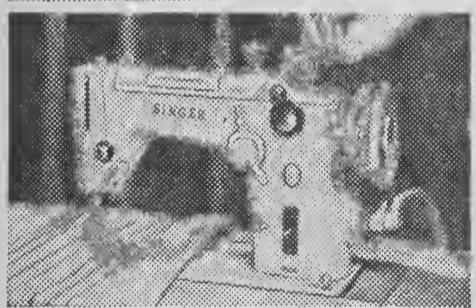
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The Bare Window

Foliage plants set on glass shelves make effective room decoration

by MARGARET ANN CLARK

I ALWAYS enjoy watering my house plants. To me they are not only beautiful plants and conveyors of pleasant memories, but they have solved a decorating problem for me.

When we moved to our present house I faced the usual problem of making do with old drapes. Having a large living room and adjoining dining room was a real thrill, but after hanging my drapes I was left with two bare windows. These windows, on the south wall of the living room, were each 60 inches long by 16 inches wide. Bookshelves had been built beneath them.

After several months of gazing at those naked windows I decided to solve my problem by making a window garden. I bought four pair of adjustable shelf brackets and had the man at the lumber yard cut four pieces of glass each four inches wide and 16 inches long. Hubby screwed the brackets to the window frames, slipped the glass in, and now I had two shelves across each window.

I had a wonderful time filling those glass shelves. A friend leaving for another province gave me two spider plants and I placed one on each top shelf. Their graceful slender leaves cascaded downwards and already the barren look was gone from the windows. I added a few pieces of colored glass and small ornaments but needed more plants. Wherever I went I looked for additions to my collection to make it truly a window garden.

When the Women's Institute held a meeting in a home west of town I came home happily with slips from two different species of ivy. Lovingly cared for, they have grown to four generous sized plants climbing around the shelves and window frames. Other friends donated plant slips of various

kinds. Now my shelves are full and the tops of the bookcases hold their share of greenery. When my friends say "Your plants are lovely" I can say "Would you like some slips to take home?"

As I water each plant my thoughts frequently turn to the good friend who gave me the original slip and often I am inspired to say "hello" by a letter. What a wonderful thing a plant is! How much love and friendship it spreads as its slips are passed from friend to friend, home to home.

While the plants remind me of generous friends, memories also revolve around the containers. The toy box yielded a discarded doll's cradle about a foot long. Somewhat the worse for wear the cradle responded beautifully to a gentle sanding followed by a coat of maple stain. On a trip to town, I carried it in a shopping bag from store to store, until I found a plastic planter to fit inside it. Filled with philodendron it carries the plant theme across the room, to a place of honor on a little table.

A large china pipe, a souvenir from my husband's boyhood home, holds a grape ivy. Graceful vines of miniature ivy grow from the pretty little teapot from which I poured tea at my childhood tea parties.

Some of my pots, carefully chosen in a soft green to blend with the walls of the room, came from the five cents to \$1 stores. I was very pleased with a rectangular plastic planter big enough to hold three new African violet plants. It has an attached tray which holds enough water to keep the plants moist for several days.

The windows which I once thought to be a problem have now become a subject of interest and conversation in our living room. My plants have given the room a simple beauty we could not otherwise afford.

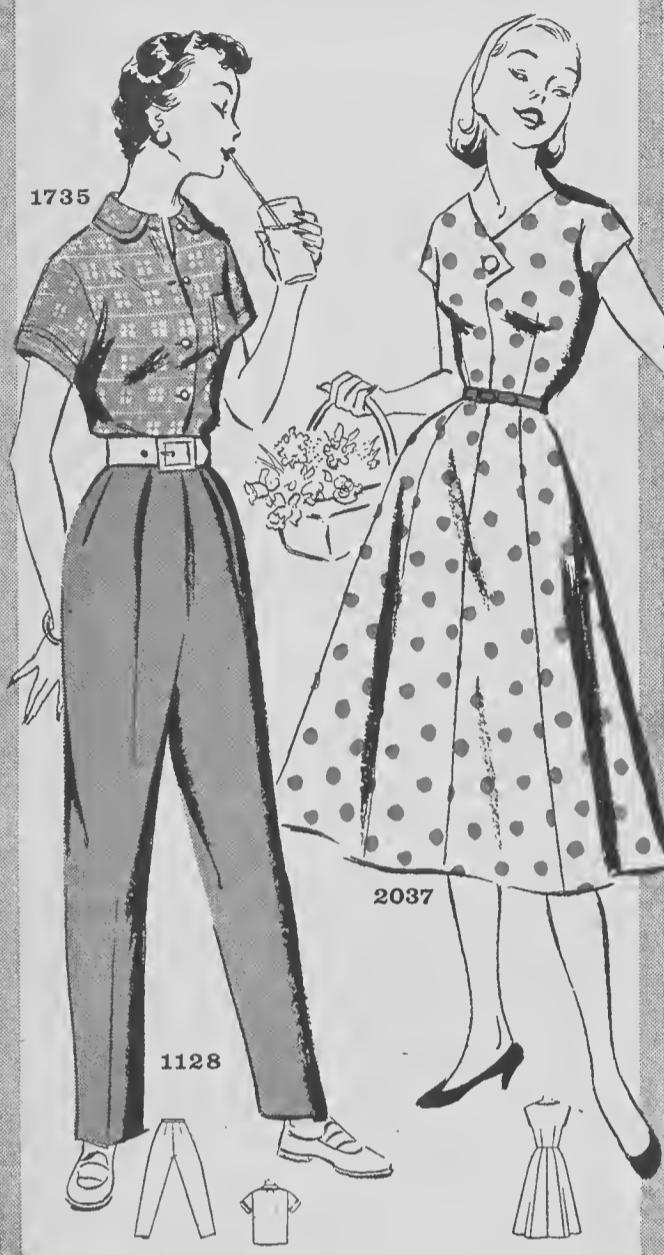
What Is Earth?

What is earth, sexton? A place to dig graves.
What is earth, rich man? A place to work slaves.
What is earth, grey-beard? A place to grow old.
What is earth, miser? A place to hoard gold.
What is earth, school-boy? A place to play.
What is earth, maiden? A place to be gay.
What is earth, seamstress? A place where I weep.
What is earth, sluggard? A good place to sleep.
What is earth, soldier? A place for a battle.
What is earth, herdsman? A place to raise cattle.
What is earth, widow? A place for true sorrow.
What is earth, tradesman? I'll tell you tomorrow.
What is earth, sick man? 'Tis nothing to me.
What is earth, sailor? My home is the sea.
What is earth, statesman? A place to win fame.
What is earth, author? I'll write there my name.
What is earth, monarch? For my realm 'tis given.
What is earth, Christian? The gateway of heaven.



Recently we came across an old scrapbook, which my great grandmother Thornton had kept before the turn of the century. Leafing through the time-stiffened, age-ambered pages, we came upon a newspaper clipping conveying the anonymous bit of quaint prose given above. It had appealed to her and she had pasted it in her scrapbook. It points up the Scriptural and eternal truth that "As a man thinketh in his heart, so is he."—Contributed by John Winters Fleming.

Warm



No. 1735—Smart, comfortable blouse to top casual summer wear. Features set-in sleeves, "little boy" collar, straight back. Pattern includes tie neck and long sleeve style. Sizes 10, 12, 14, 16. Size 14 requires $1\frac{1}{4}$ yards 36-inch material. Price 35 cents.

No. 1128—Fashionable easy-to-make slacks to see you through the summer season. Have waistline darts at back and front, side pockets. Pedal pushers and shorts can also be made from pattern. Sizes 7, 8, 10, 12, 14. Size 10 requires $2\frac{1}{8}$ yards 36-inch material or $1\frac{1}{8}$ yards 54-inch material. Price 35 cents.

No. 2037—New in women's fashions, the slenderette dress is designed to give a slim, smooth appearance. Suitable style for housedress or trips to town. Features: becoming V-neck, drop sleeves and 8-gore skirt. Sizes 12, 14, 16, 18, 20, 40, 42. Size 18 requires $4\frac{1}{4}$ yards 36-inch material. Price 50 cents.

No. 1756—A cheery apron that is both practical and pretty. Bib extends to slightly gathered waistline. Three apron styles included in pattern; each is gaily appliqued. One size only. Requires $1\frac{5}{8}$ yards 36-inch material. Price 35 cents.

No. 2023—For graduation, achievement days and other special events here is an extra special dress. Fitted bodice shows a bateau neckline at front tapering to V back. Slightly elongated waist dips to V both back and front; unpressed pleats give skirt fullness. Sizes 11, 12, 13, 14, 15, 16, 18. Size 14 requires 5 yards 36-inch material. Price 50 cents.

Weather



1735

2037

1128

1756

2023

1981

4417

Cottons



1865

2059



No. 1865—A toddler will look sweet in this daintily smocked dress and bonnet. View 1 shows smocked yoke, tiny collar, puffed sleeves with smocked trim; view 2 has cap sleeves and "puffed" pockets. Sizes $\frac{1}{2}$, 1, 2, 3. Size 2 requires $2\frac{1}{8}$ yards 36-inch material for dress and bonnet. Price 35 cents.

No. 2059—A perky pair for an active miss. Dress is simple to make, yet has all the features important to a growing girl—slim bodice, full gathered skirt, short sleeves, gay pocket trim. Matching panties included. Sizes 1, 2, 3, 4, 5, 6. Size 4 requires $2\frac{5}{8}$ yards 36-inch material for dress and panties. Price 35 cents.

No. 4417—Play outfits for the younger set. Popular overalls have novelty checked trim and "bunny" appliques on knees. Matching jacket has raglan sleeves, round collar, patch pockets, button front. Jacket lining same as overall trim. Sizes $\frac{1}{2}$, 1, 2, 3. Size 2 requires $2\frac{1}{4}$ yards 36-inch material for overalls and jacket. Price 35 cents.

No. 1981—Play-time pair for young man of the family. Smart checked shirt has revere collar, front extension panel, set-in sleeves; trousers feature front pleats, zipper closure and two-button closing waist band. Sizes 2, 3, 4, 5, 6, 8. Size 5 shirt requires $1\frac{3}{8}$ yards, trousers $1\frac{3}{4}$ yards (36-inch material). Price 35 cents.

Patterns are printed with instructions in English, French and German.
State size and number for each pattern.
Note price, to be included with order.
Write name and address clearly.
Order Simplicity Patterns from The Country Guide Pattern Service, Winnipeg 2, Man., or direct from your local dealer.

The Country Boy and Girl



MAY is the month for planting gardens. We turn over the soil, smash the big clods of earth so that the soil will be fine and loose before we sow the seeds. Did you know that an assistant gardener helps make the soil ready for planting? It is the slimy, wriggling earthworm.

When the earthworm wishes to make a home, it builds a burrow. If the earth is soft, it uses its head as a wedge and forces the soil apart until it has made a hole into which it can creep. Sometimes the soil is too hard for it to do this, so it swallows the soil, passes it through its body and eats its way down. Look closely to find little spirals of earth on the top of the ground—these have been used by earthworms. These spirals dry in the sun and are scattered over the surface by the wind and rain to make a layer of fine soil. Worms drag leaves and decaying vegetable food underground which help to enrich the soil.

The earthworm has no backbone, but is made up of about one hundred and thirty rings of flesh. Its mouth is at the bottom of the first ring. The earthworm has no eyes, yet it can tell the difference between light and darkness; it has no ears, but it seems to be able to "feel" sounds. It travels by anchoring the rear of its body to the ground with its bristles, then raises and stretches the front end and sinks the front bristles in the soil—like a concertina being opened.

Put a few earthworms in a deep dish with some moist earth and watch them at work.

Ann Sankey

Little Lucy

by MARY GRANNAN

ONCE upon a day, in a daisy field, a little lamb stood by the fence rail alone, and afraid. Her mother had been taken away, in a big truck.

"You'll be all right, Little Lucy," said a friendly sheep. "You're big enough to fend for yourself, now. You can graze on the nice green grasses and drink from the cool brook."

Little Lucy sighed. "But I don't want to graze all alone. I want my mother. When will she be back?"

The friendly sheep shook her head. "She won't be back, Little Lucy. She's gone to market. We all go to market, sooner or later."

Little Lucy didn't understand, but she knew she didn't want to go to market. She walked to the other side of the field to talk to the white horse in the pasture. "Hello, White Horse," she said, "are you going to market?"

The white horse neighed pleasantly, and shook his head. "No, Little Lucy, I'm not going to market. My brother and I pull the plow in the fall, the planter in the springtime, and the raker in the haymaking season. In the winter, we go to the lumber woods to haul wood. I've been to market, of course. We sometimes pull the farmer into town to get provisions."

Little Lucy thought over the life of the white horse. It sounded like a useful life. "May I help you and your brother pull the plow and the raker, the planter and the wood?" she asked.

The white horse shook his head again. "No," he said kindly. "Lambs and sheep can't do those things."

"Have lambs always gone to market?" asked Little Lucy. "Hasn't there ever been a lamb who didn't?"

The white horse laughed. He was a very wise old horse and in his time had learned many things. "Come closer, Little Lucy," he said, "and I'll tell you a story."

Little Lucy put her white chin on the fence rail to listen, while the horse

recited, "Mary had a little lamb, its fleece was white as snow, and everywhere that Mary went, the lamb was sure to go. It followed her to school one day, which was against the rules. It made the children laugh and play, to see the lamb in school."

Little Lucy was bewildered by the pretty rhyme. She cocked her head to one side, and asked: "What's a 'Mary'? What's a school?"

The horse looked down on the little lamb in astonishment. Little Lucy knew of nothing beyond the line fence. "A 'Mary' is a little girl," he said. "Most little girls are very kind and good to their dogs and kittens, and rabbits and ponies. The little girl in the story had a lamb for a pet, and the lamb liked Mary so much he followed her to school. A school is a place that is built like a house, and children go to it each day."

Little Lucy nodded her head. She smiled up at her big friend. "White Horse," she said, "I'm going to find a 'Mary.' If I could find a 'Mary,' I wouldn't have to go to market."

The horse was aghast at Little Lucy's quick decision. "Wait, Little Lucy, wait. You can't find a little girl, and you can't go to school. That was just a story that I told you."

"I'm going to make it come true," said Little Lucy happily, and went gamboling away, out of the sound of the white horse's voice. She must get out of the field. She knew there were no "Marys" in the field.

The friendly sheep was most helpful. She told Little Lucy that the schoolhouse lay on the other side of the hill. She had seen the children going toward it many times. "Tonight, we'll butt the gate open. Then all you'll have to do is follow the road."

The next morning saw Little Lucy on her way to school. As she reached the peak of the hill, she could see the children playing together in the school yard. She hoped there would be a "Mary" among them.

"Look," cried a little boy. "Look at who's watching us through the fence."

"A little lamb," said a little girl, "Isn't he sweet? His fleece is as white as snow."

The little boy laughed. "He's probably looking for Mary." He turned and called, "Hi, Mary! Here's a friend of yours."

Little Lucy's heart leapt with joy. There was a Mary. Little Lucy hoped, as the little girl came in answer to the call, that she would be a nice "Mary." "You said there was a friend of mine somewhere, Jimmy, where is she?"

"Looking through the gate at you," laughed Jimmy. "She must have followed you to school, like the lamb in the nursery rhymes."

Mary ran toward Little Lucy. "Hello," she said, "were you looking for me?"

"Maaa," said Little Lucy softly.

"She said 'yes,'" said one of the children. "Do you know the lamb, Mary?"

Mary shook her head. "I've never seen it before in all my life. I wonder where it came from."

After school, Little Lucy was still standing at the gate, and when Mary turned down the road to go home, the

lamb followed her. Mary was very much amused and said nothing. She wanted to see what would happen. Little Lucy followed her right to the porch of her home and into the kitchen.

"What on earth do you have here, Mary?" asked Mary's mother.

"A lamb, Mum," said Mary.

"But where did you get it?"

Mary told what had happened. "Please, may I keep it as a pet? It followed me. I'll take care of it."

Mary's father made enquiries around and learned from where Little Lucy had come. He bought the lamb for Mary, and the two became inseparable friends. Little Lucy longed to tell the friendly sheep and the white horse about her happiness.

One day Mary took her for a walk near the daisy field with the running brook. Little Lucy ran to the fence and bleated out her story.

Mary laughed. "Were you telling them something, Little Lucy?" she asked. "Were you telling them that you were happy with me?"

"Maaa," said Little Lucy, which of course, meant "yes."

Sketch Pad Out-of-Doors

No. 63 in series—by CLARENCE TILLENIUS



THE artist whose acquaintance with pigs does not extend beyond bacon and eggs for breakfast ought to look them up and learn something new.

Pigs are interesting, and far from being as easy to draw as their rounded outlines suggest. Pigs seem meant by nature to be fat, and while a thin cow may be a good cow and a heavy milker, a bony pig just does not look right. "Fat as a pig" did not become a folk-saying without cause. So when you go out to sketch pigs keep in your mind that a pig is made up of curves.

A herd of pigs, or even two or three in a pasture, make good models. They move about, but not too quickly for you to analyze their shapes and of course when they lie down to doze you can make careful studies in detail of the head, the shape of the ears (watch these, they are tricky to get),

and particularly the shape of the nose and the under jaw. While they are moving about, of course the kind of drawings you get will of necessity be very sketchy—like the drawings reproduced above. You should, before making any sketches at all, study them carefully for ten minutes or so to be sure that you have the shape clear in your mind. The legs of a half-grown pig, for instance, are longer than you might think. You will see this if you mentally compare this length with the depth of the body just behind the foreleg.

So do not be in a hurry to put your pencil to work. Watch carefully and think before you put down any line. The essence of drawing is to see how one line can be made to do the work of two—or even ten.

(Sketch Pad Out-of-Doors complete series now available in book form from The Country Guide, Winnipeg. Price postpaid \$1.00.)

Cash Crop Costs Run High



[Guide photo]

A row-long greenhouse for cucumbers is made of wax paper on wire hoops.

ANNUAL expenses on a cash crop farm in southwestern Ontario can run to 10, 20, or 30 thousand dollars a year.

Look at the farm of Anton Butler and his son Ken, at Harrow, and you'll see why.

Hillside Trench Silo

by H. J. MILLER

DOWN in Tennessee a farmer has devised another way to build a concrete trench silo, without the use of forms or ordinary bracing. Construction costs are said to be about half those required to build a conventional upright silo of the same capacity.

Here is how it was done. A suitable hillside location was chosen and measured off. A ditch-digging machine was used to dig two ditches seven inches wide and seven feet deep, exactly where the sides of the silo were to be. The ditch walls were sloped inwards to make the trench three feet wider at the top than at the bottom. Into these ditches went ready-mix concrete reinforced with some steel. Galvanized pipes were placed in the concrete every three to four feet, and were left protruding

Although they work only 120 acres, their crops are high-labor ones, and you'll see up to 15 men working there in the summer.

Tobacco plants are started in hot-houses about April 5, to be ready for outdoor-planting toward the end of May. Thirty-five acres are set out with a two-row mechanical planter. Land is carefully fertilized with 800 pounds or more to the acre, and cut-worms and white grubs must be combatted with soil treatment of aldrin. Later, suckering is controlled with maleic hydrazide, which is cheaper than the old way of doing it by hand.

But tobacco is only one crop. The Butlers grow 30 acres of potatoes, which are packed into ten-pound bags on the farm.

Cucumbers are field-planted early under wax paper to make up another high-income crop. Corn is grown to keep the land working at a relentless pace.

Income can be high with that kind of program, but there isn't room for many mistakes, or a good living can be turned with startling speed into a major loss. V

Thinking of building a silo? If so, this design may help you cut costs

six inches above the top of the trench. (The pipes serve as stops to keep livestock from pushing the feed gate back too far and to prevent excessive silage waste.)

After the concrete in the ditches was set, a bulldozer was used to push the soil from the area between the smooth, pre-made walls. A four-inch slightly sloping concrete floor was then poured. A concrete ramp was added at the upper end to facilitate the unloading of silage, and a concrete apron was laid at the lower end to make it easier to keep the feeding area clean.

The silo built in this manner is 23 feet wide at the top, 20 feet wide at the bottom and 150 feet long. It has a capacity of 500 tons and is used for the self-feeding of 40 cows. V



Concrete walls, floor and self-feeding apron are features of this silo. Ready-mix concrete, a ditch-digger and a bulldozer were used in making it without forms.

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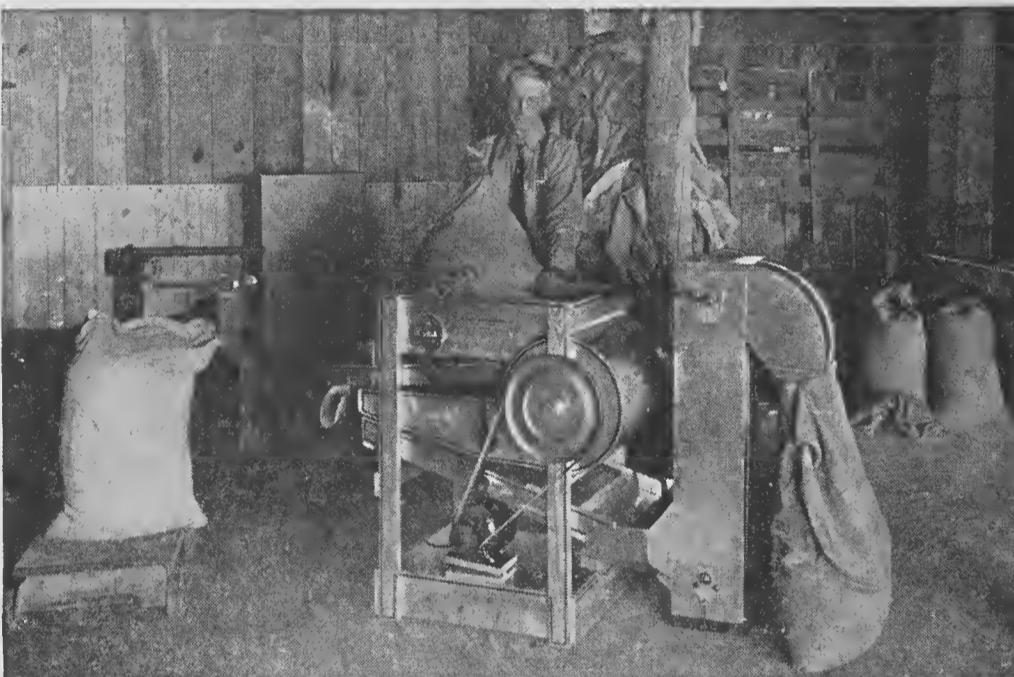
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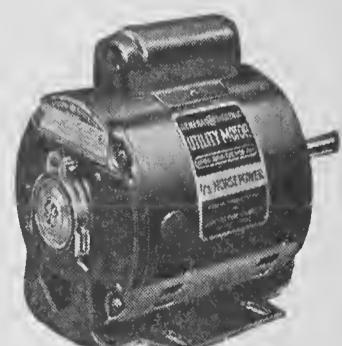
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Odds And Ends

by THOMAS DUNBABIN

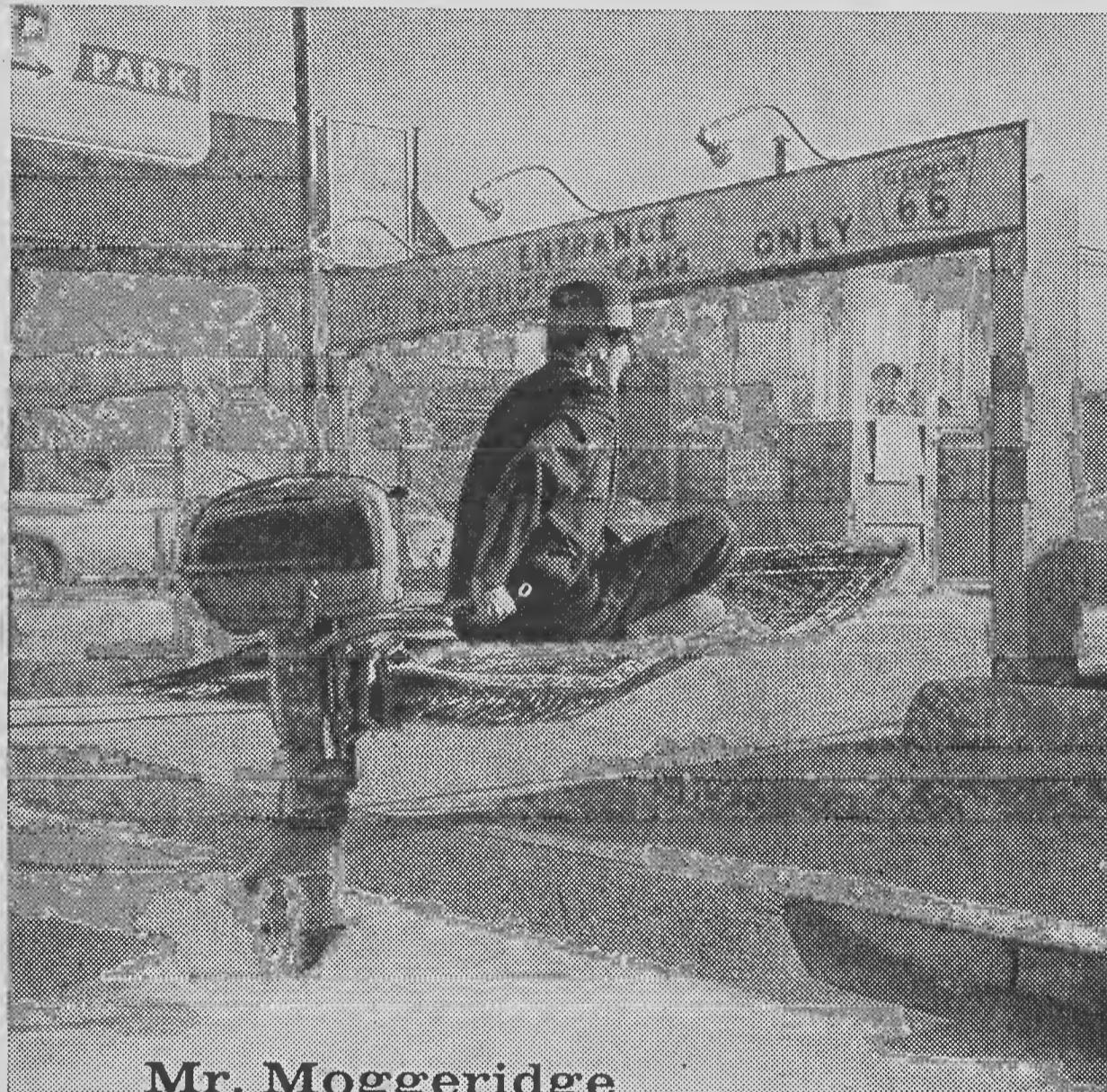
Wyoming fights wind erosion. Wind erosion is not much of a problem in Canada except sometimes in the drier parts of the prairies. But it has done terrific damage in the Dust-bowl of the United States. Engineers in the agricultural research section of the University of Wyoming at Laramie have come up with an answer to wind erosion, now being tried out. This is a tractor machine that plows, sows seed and drops fertilizer all in one operation and leaves two-foot strips of vegetation to keep wind erosion from getting a hold. And it does all this at an estimated cost of

\$3.25 an acre. On each side of the machine are two "shovel plows," set with one five inches above the other. The top one shaves off the surface growth and the lower pulverizes the soil and makes a seed-bed four inches deep. The seed and the fertilizer are dropped into this. The idea is that when the wind starts to shift the soil of the plowed strips, the dust will be held by the vegetation of the untouched two-foot strips. In addition to holding the soil, the vegetation of the strips will make good fodder. V

Overlanding in Australia. Australia's annual cross-continent cattle drives begin in June. The cattle are driven for distances up to 2,000 miles from the Northern Territory and the Kimberley region of Western Australia, to the Queensland coastal pastures, to Adelaide and other markets in the south of Australia, and to the southwest corner of Western Australia. The total number of cattle driven across Australia last year ran into the hundreds of thousands. Altogether, 63,000 cattle passed one point on the Northern Territory - Queensland border. While most cattle from the far outback have to walk to market, fat cattle are slaughtered on some Kimberley stations and the meat is flown out by airplanes. Stud cattle are sometimes sent by air. Police last year used light planes to search for 800 cattle stolen from a 50,000-acre ranch near Adavale in Queensland. These cattle were worth about \$54,000. V

Trees more than 100 yards high. Foresters have just measured a mountain ash (Eucalyptus) tree in the Huon district of Southern Tasmania, which was 320 feet high. It is claimed as the tallest tree now standing in Australia. It is, however, far from being the tallest tree ever known in Australia. In 1939, Mr. A. S. Yuill, of the Victorian Forestry Commission, ran a surveyor's tape along a fallen mountain ash at Tarongo, Victoria, which measured 341 feet. The top-most branches had been burned or rotted; when standing, the tree had been at least a dozen feet taller, or more than 350 feet high. Some of the standing trees in this region were probably still higher. V

Olympic wheat. After nearly 20 years of research, experts of the Victorian Department of Agriculture announced on the eve of the Olympic Games in Australia, the development of a variety of wheat to be named the Olympic. It is expected to increase Victoria's yield of wheat by 2,000,000 bushels a year, worth at present prices \$2,240,000. V



Mr. Moggeridge

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Attractive Prairie Farmstead



Guide photo

Albert Delamare, his wife and Donald, looking over their grass test plots.

ONE of the most attractive and practical home-ground layouts on a Saskatchewan farm was, as recently as 1942, just another tract of brush. The transformation was made by Albert Delamare, who farms a few miles north of Prince Albert.

North of the house there is a broad belt of trees, and more trees line the other three sides of his garden. He has also planted conifers on each side of the road leading to his farm, making it much easier to keep the road open all year round.

Despite some winter-killing in this northern part of the province, Mr.

Delamare has a wide variety of trees, fruit bushes, ornamentals and other plants in his garden. These include Rescue, Heyer No. 12 and Trail crab-apples with grass sown among them to slow down their growth, and to control weeds. There are red and black currants, gooseberries and Herbert raspberries, and a Viking-wild raspberry cross developed locally, and known as Honey King, which is especially hardy. A good selection of vegetables completes the garden produce.

There are birches, maples, firs and Russian crabs in his windbreaks. Elsewhere he has cedar, horse chestnut, weeping birch, dogwood, spruce and many more.

Mr. Delamare had allotted space for testing nine varieties of grasses last summer, to find which of them were adapted to that region. They included creeping red fescue, merion bluegrass, Kentucky blue, green stipe, Russian wild rye, Summit and Northern crested wheatgrass, intermediate wheat, and brome. To improve the drainage in shallow depression, which occupies a part of the garden, he has sown alsike clover and grass.

Albert Delamare grows wheat and barley on his half-section, and his 12-year-old son, Donald, had a good plot of Husky barley last summer, in connection with his 4-H grain club project. Whenever they are able, the family is out working in the garden, which has become a showplace. "Gardening and landscaping don't bring in money," says Albert Delamare, "but the results are very satisfying."

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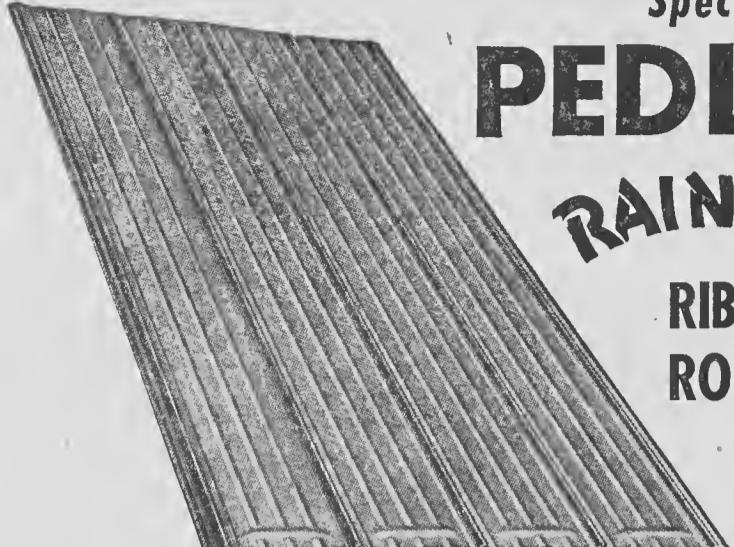
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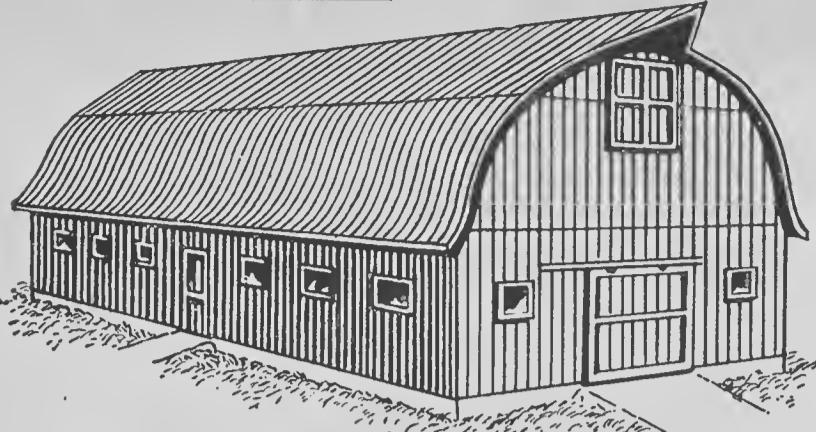
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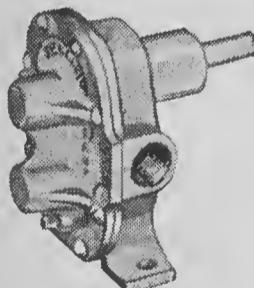
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Cut Beef Costs

Continued from page 12

"Feeds and Feeding" while trying his hand with calves. Now, he has a 60-cow herd, and fills the remainder of his needs in the West.

For this special Red Triangle market, calves must be fed heavily, right from weaning to an early finish. They are sold on carcass grade for a premium, if they are good enough. Here is the program that puts most of his calves into that special market.

Calves are divided into two groups, each running loose, with a barn for shelter and a yard for feeding and exercise. In the fall they go onto about two pounds of alfalfa hay per day; six pounds of corn and cob meal; two pounds of boiled white beans; one pound of soybean meal; and ten pounds of corn silage. They get whatever spare apples, potatoes, and corn stalks are available, too. Stilbestrol is begun in early February, and ground corn is gradually increased up to 15 pounds a day, to finish the cattle and have the barn cleaned out by June.

HARRY KNIGHT and son Bill have given up cash crops in favor of beef on their farm at Mull, but they have turned to year-round feeding, to bring added flexibility; and have boosted numbers to make the enterprise pay.

Future Farmers Are Very Busy People

Action-packed vocational agricultural program flourishes in British Columbia

The motto of the Future Farmers of Canada

I believe in the future of farming and that life on a farm is both honorable and satisfying.

I believe that success in farming comes through a scientific attitude, efficiency, hard work, and determination.

I believe in being a good citizen, honest and fair in all my dealings.

I believe in accepting responsibilities and doing my part in my home, school, and community.

I believe that serving my country, helping others, and doing my best in my vocation will lead to a happier, fuller life.

(gold pin). In addition to their four years of high school, members are allowed to belong for two years after graduation.

ALTHOUGH the Future Farmers have been a part of the farm youth scene in the United States (F.F.A.) for 50 years, it is only recently that the movement has become established this side of the border. The first chapter was formed at Creston, in southeastern B.C., 11 years ago, when Gordon Thorpe, superintendent, Experimental Farm Substation there, was invited to join the staff of the Creston High School to teach vocational agriculture.

This winter they are feeding 240 steers—50 more than a year ago—and after harvesting corn silage, hay and even 80 acres of grain corn, the Knights have just about enough home-grown feed to carry them.

Last year's market forced them into a year-round operation. Then, a weak spring market kept them from selling their fed yearlings until June. This year, they bought more light cattle (500 to 550 pounds), so that in the spring they can go out as grassers, or right onto feed, depending on the market.

Unlike many farmers, by January, the Knights were still undecided whether to buy a stilbestrol supplement. They were trying hard to get along without buying any feed.

You can find cost-cutting ideas on this, as on any beef farm. For instance, the Knights use corn stalks for bedding, because they don't grow enough straw. They designed their own feeding barn on one farm, but, in all, three sets of buildings shelter the cattle. They built this one 60 feet square, divided into three 20-foot-wide sections. The center section has a high roof for feed storage, and is separated by mangers from the lounging-feeding areas at either side. Both pens run to adjacent yards outside, and since there is a tower silo between them, mangers are provided there, also. Thus, the cattle can feed either inside or out.



The four girls at the 1957 convention of the F.F.C. at Langley were: l. to r., Marion Fochler, Janet Spraggs, Florence Bailey and Dorothy Armstrong.

"I felt we had to have some definite name or organization to give these courses some meaning," states Mr. Thorpe (who is now district horticulturist at New Westminster), "so we travelled to the nearby town of Kalispell, Montana, and studied the F.F.A. organization there. We modelled ours along the same lines."

Today, there are 12 chapters of the F.F.C. in British Columbia, scattered throughout the province from the border to Fort St. John in the Peace River country—three more have been organized and are awaiting a charter. The average club contains from 20 to 30 members, making a total enrollment of over 300 young people, mostly boys.

It is a bit of a paradox that the movement began, and has flourished, in a province where only a small fraction of the total area is arable land, yet has been slow to develop on the prairies where agriculture dominates the economies of the three provinces. In Alberta, high school vocational agriculture has been played down because three farm schools are in operation there, but a stirring of interest in the F.F.C. is evident in Saskatchewan, which has two chapters formed and two more expected this year.

The first convention held by the fledgeling organization in B.C. was staged at Kelowna seven years ago. Since then, others have been held at Creston, various points in the Okanagan and at Langley. At convention time, each chapter generally sends about five representatives as a delegation. This consists of two contestants, two convention delegates, and a public speaker. The contestants take part in the various judging competitions and exams, while the delegates handle general convention business.



Dave Martens of Creston (left), with Russel Shortt, Dawson Creek chapter.

The 1957 convention got off to a good start Tuesday morning, April 23, with a meeting of the Provincial Executive. At 10 a.m. delegates embarked on a farm tour, while judging teams began a series of competitions that took them throughout the Langley area judging classes of poultry, swine, dairy cattle, beef cattle, and sheep at well-known local farms. A public speaking contest was held in the evening, and next day brought a written exam of 430 questions (covering every field of agriculture), a tractor driving competition, shop work tests, and a trip to the top of Vancouver's Hollyburn Ridge to provide a bit of relaxation at day's end. The final day, Thursday, was reserved for grain and apple judging, seed and weed identification, and presentation of awards.

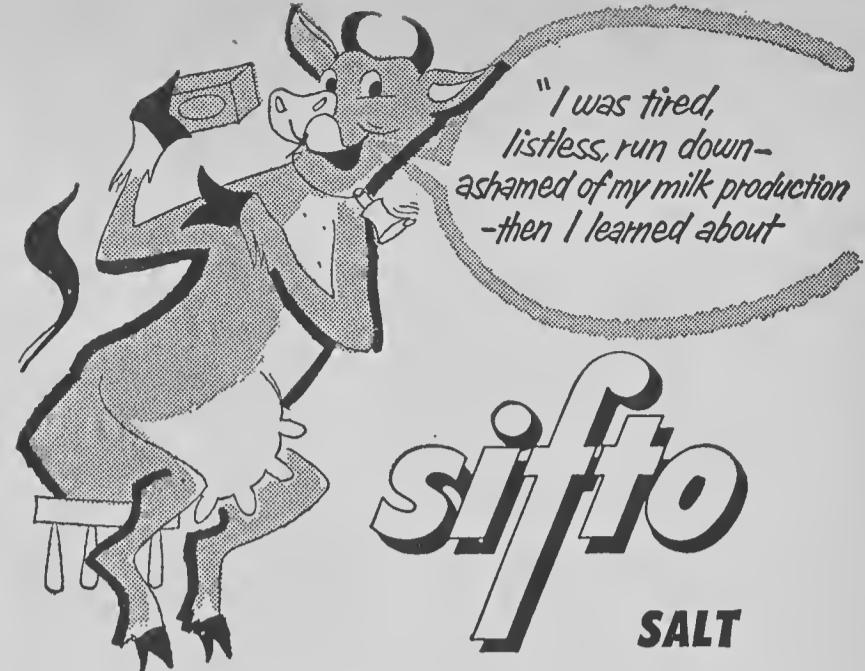
Seed and Hog Specialties Combine

PARKLAND looks like a really good malting barley," says Bill May of Strathclair, Man. He was one of the few growers selected to increase this new variety in 1956 for distribution this year. His 45 acres of Parkland barley produced around 65 bushels an acre.

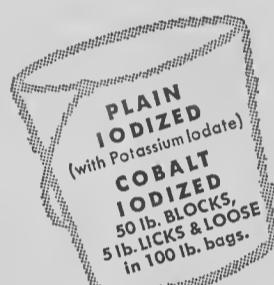
Mr. May also helped to increase Selkirk wheat a few years ago, and he grows Garry seed oats. But he likes the barley best, because his parkland-type, black loam is more adapted to it. He summerfallows half of his quarter section each year, working in manure from his hogs. He also applies 11-48-0 fertilizer, except on stubble, where he uses 16-20-0.

He built a seed-cleaning plant last summer, and will use it for his own seed and some custom work. Nearby, he has variety test plots of clovers, grasses, cereals, corn, sunflowers and vegetables, which he maintains for the Strathclair Crop Improvement Club.

Bill May is a past president of the Manitoba Swine Breeders' Association and a director of the Canadian Swine Breeders. He has all A.R. Yorkshire hogs, and farrows six or seven sows a year. The raising of breeding hogs is an important part of his program. The production of A.R. hogs and registered seed shows that Bill May is a quality producer, who also knows how to make good use of a quarter-section.



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18

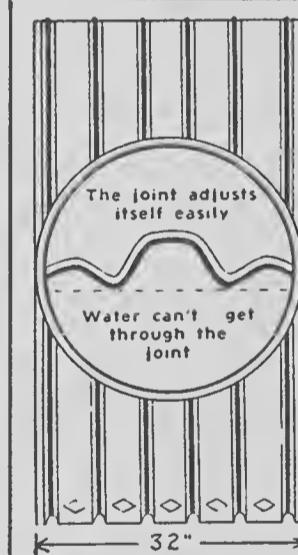
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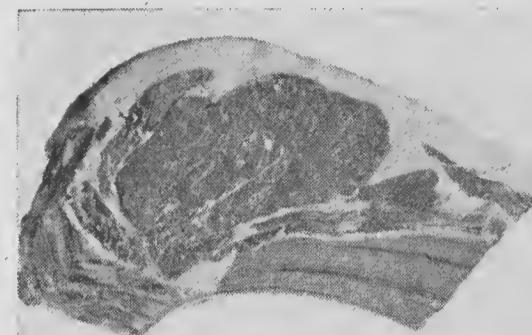
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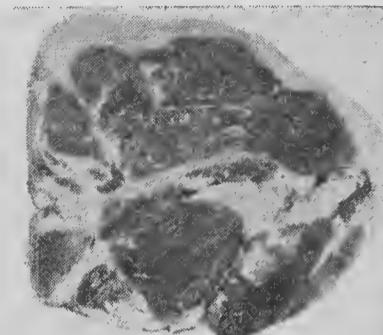
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What Consumers Think of Beef Grades

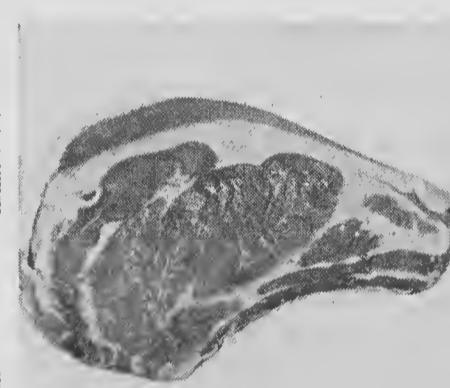
TO compare beef grading standards with what the consumer prefers, 2,900 people attending the Royal Agricultural Winter Fair in Toronto were asked to say which they would choose from the four roasts and four steaks illustrated below. A similar test was made with 1,100 customers at two retail stores in Vancouver. In no case were they told what the grades were, but made their selections by numbers on the various cuts. These are the results:



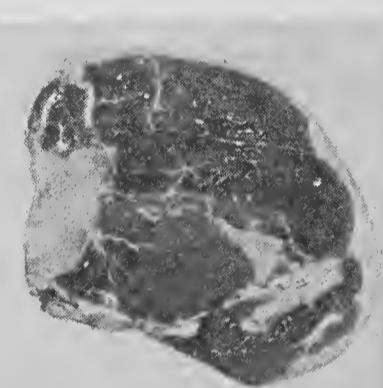
Choice Grade, placed first in Toronto and Vancouver.



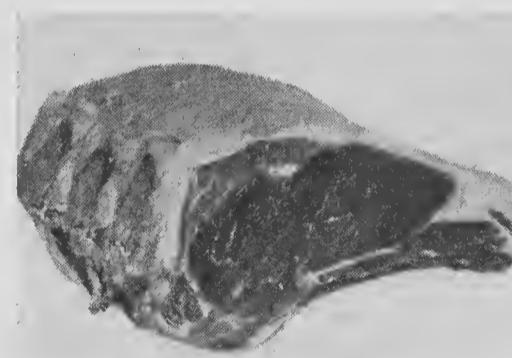
Good Grade, placed first in Toronto and third in Vancouver.



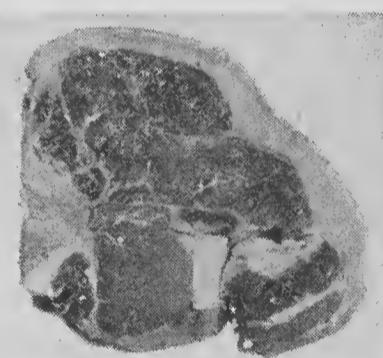
Good Grade, placed second in Toronto and Vancouver.



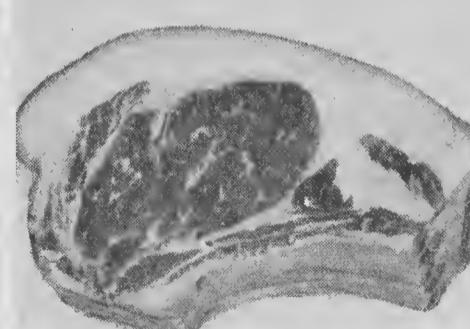
Commercial Grade, second in Toronto and Vancouver.



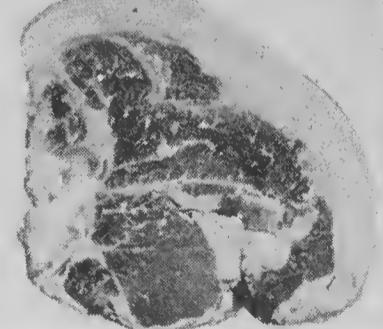
Commercial Grade, third in Toronto and fourth in Vancouver.



Choice Grade, third in Toronto, first in Vancouver.



Fat Choice Grade, fourth in Toronto and third in Vancouver.



Fat Choice Grade, fourth in Toronto and Vancouver. ✓

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PROCESSORS of dehydrated alfalfa, which is big business in the Renfrew - Arnprior district of eastern Ontario, have come up with a way to retain more vitamin A in the finished product. This will mean better, or cheaper, feed for commercial feed companies, and thus better value for the commercial feed dollar.

Under regular systems of storing dehydrated alfalfa, vitamin A content drops rapidly. Now, it has been found that inert gases can be used to retain the carotene.

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TORONTO 18**The Vanishing
Woodpile**

by RAY LOGAN

HERE'S no two ways about it. The salesman came at the psychological moment. A driving sleet had come swooping down from the north in the night. Early morning found me slogging my way around the yard doing as few of the chores as possible. The salesman caught me midway between the woodshed and the back porch, with an armful of hardwood for the kitchen stove.

"Ah . . . ha-a," he gloated, as if he had caught me disposing of the body. "You burn wood, I see."

He followed me into the kitchen and watched while I threw the wood in the woodbox. Mechanically, I brushed the pieces of bark off my arms, drew a couple of rocking chairs up close to the fire, and we sat down to talk.

It turned out that he was selling oil furnaces and such. "Think of it, man," he exulted. "No more messy bits of wood all over the floor and the stove." With a wave of his arm he indicated the huge old woodbox . . . "No more dragging yourself out in the storm to bring wood from the shed . . . no more cutting and hauling from the woodlot. Why, it's sheer emancipation, that's what it is."

I certainly admit that he had a good argument, and there with our feet on the fender of the roaring old range we worked it all out. By scraping the old stove we would have room for a much classier oil range. Since we wouldn't need it for heating, it would be used only when the wife wanted to bake. And, he pointed out, the temperature was easily controlled; everything baked evenly and tasted like ambrosia.

Just then we were interrupted as my wife came from the pantry with a pan of biscuits for the oven. When she opened the oven door a tantalizing whiff of baking beans was wafted to the nostrils of the furnace man. He closed his eyes dreamily. "I haven't smelled beans like that since I was a little gaffer," he said wistfully. I winked at my wife, and she set another plate on the table.

Well, by the time the biscuits were done, the beans dipped up out of the brown crock, and we were tucking our napkins under our chins, the oil furnace man had me just about convinced. I had no idea that cutting a winter's supply of wood could be so tiring . . . until he pointed me to the light. Being ignorant of such things as thermostats and barometric draft regulators, I asked a few questions at the table. But the furnace man seemed



"How's your credit rating?"

reluctant to divulge any more information. In fact, he just sat there chewing on those hot biscuits, a look of bliss on his face.

"How do you do it, Ma'am?" he turned to my wife. "I haven't tasted anything like these biscuits since I was a kid."

My wife flushed with pleasure. "You need a good hot oven. Bake them quick."

"Maple's the best for that," I said. "Split small."

"But what I'm interested in," I said, "is this here vaporizing pot you were telling me about. Now does it . . ."

"I never knew they made beans like that anymore," said the furnace man, passing up his plate for a third helping.

"It's the baking that does it," my wife told him. "Beans need to simmer all day in a good big crock. They need a slow fire."

"Couple of big sticks of birch will do the trick," I told him.

"Just think," I said, as we pushed back our chairs and the man was reaching for his hat, "No more wood to split . . . no more ashes. Man, it's a temptation, all right."

"Brother, I'd carry ashes all day for the privilege of eating what we just ate," said the furnace man . . . and I'm sure he meant it.

Well, that was last week. This morning the world looks different. The air is crisp and biting in your nostrils, and a pale sun is pushing feebly through the clouds. It's the perfect day for tramping in the woodlot. And somehow it doesn't seem like work to take along the axe and cut a few sticks here and there. I've marked a big old hemlock that I want to cut one of these days. It will make a good johnny-cake fire some night next winter. I might even sell a cord or two.

Who to?

Why . . . the oil furnace man, of course. He telephoned me a few days ago. Seems he's putting in a wood stove at his place.

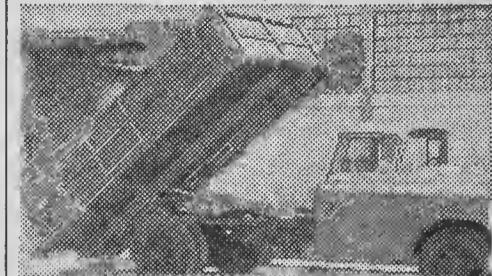
**All Hands
Repel a Moth**

Continued from page 17

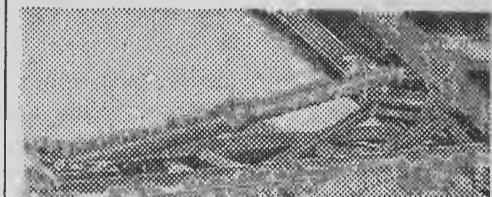
customs, and sprayers, tractors, trucks, and other necessary equipment secured. Legal authority had to be obtained to fumigate and to enter private premises. Photographs were necessary of the entire operation. In all, perhaps 20 or more specialists were involved in the project, plus extra labor for orchard clearing, spraying and so on.

All of this was because of a little moth. The entomologists were reasonably confident that the larvae imported in the fruit would arrive at the moth, or flying, stage before warm weather this spring. Until that time arrived, the insect would probably not spread to more than the areas close to the canning plants. The problem was to destroy, as far as possible, every insect brought in, and save the Okanagan growers heavy annual costs thereafter. Not only every fruit grower in Canada, but every farmer in Canada will hope that these unprecedented, co-operative, large-scale efforts will be found to have been effective when September 30 arrives.

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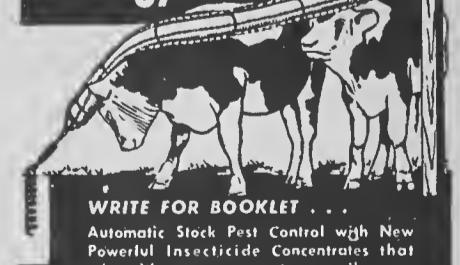
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THE Country GUIDE

with which is incorporated

THE NOR'-WEST FARMER and FARM AND HOME
Serving Canadian Farmers Since 1882

VOL. LXXVI

WINNIPEG, MAY, 1957

No. 5

Report on Farm Income

WHAT is likely to be the most widely read of the several reports of the Saskatchewan Royal Commission on Agriculture and Rural Life, the report on Farm Income, was submitted to the Government last month.

This document is comprehensive, containing upwards of 150 conclusions, leading to 46 separate recommendations. It brings together the earlier economic reports of the Commission, on Mechanization and Farm Costs, Agricultural Credit, Land Tenure, Crop Insurance, and Agriculture Markets and Prices, and relates these to the low and variable nature of farm income. It covers new ground in dealing with other subjects that have a bearing on farm income, namely, research, extension, resource development, conservation, and farm management. Finally, it examines the underlying conditions which shape and complicate the social and political problems facing the people of Saskatchewan. It concludes that "without fundamental improvement in the level, stability and distribution of farm income, these problems cannot be squarely met."

After reading the conclusions and recommendations of the Commission, one cannot help but be impressed. After much research and study, the Commission has accumulated and sifted an immense amount of information about the cause and effect relationships bearing on what the farmer receives for his labor. From this background of understanding, the Commission has spoken out with refreshing frankness and has said many things that need to be recognized. It has defined the farm income problem, and has been specific, even bold, in advocating its solution of the problem.

The Commission recognized from the outset that the complex and widespread problem of chronically low and variable income cannot be successfully attacked in a single province or region, or with a single program. The usual piecemeal, patchwork approach to farm problems, almost always dictated by emergency conditions, will fall far short of providing a satisfactory remedy for the disparities between per capita farm and non-farm incomes. This is suggested by the fact that more than half of the Commission's recommendations are directed to the attention of the national government.

It is not our intention here to discuss the report in detail, or to pass judgment on the recommendations it contains. Rather, our purpose is to underline the useful nature of the document, and to express the hope that responsible leaders in the farm movement, and at all levels of government, will study it carefully. It is a significant and serious document about the very heart of the farm problem. As such, it deserves serious consideration. V

Culture and the General Election

TWO events, one recent and one to come, are more closely related than may be apparent to many Canadians. The Canada Council, recently established by the Federal Government and endowed with a \$100 million fund, held its first inaugural meeting on April 30; and on June 10, a general election is to take place which will determine the character of the government that will hold power in Canada for the ensuing four years.

The function of the Canada Council is to use the funds placed in its charge for the development of Canadian culture. The word "culture" has several meanings, all derived from an original Latin word meaning "to till." Thus culture is not a highfalutin' word, in any sense, but a word of general meaning and importance. Something of its background is employed in the following words,

applicable to the people of any progressive nation, but spoken some years ago by an American college president, with direct reference to the United States.

"We are the heirs of all the ages. The inventions, the inspirations, the high records, the burning thoughts of all the past are ours. Ours are the majesty of the Alps, and the pyramids, the glory of the seven seas, and the knowledge and the wisdom of a thousand libraries. Our inheritance is so vast that with all diligence as students and travellers, we can never view, or survey, more than the smallest part. We are using as an everyday commonplace, ten thousand inventions and customs that were the product of long and bloody toil."

Just as Canadian culture is different from the culture of any other nation by reason of our environment, geography, wealth and the social composition, so it is also shaped by the nature and the type of government we have established. In the same way, Canadian culture will be further shaped and developed by the wisdom with which we choose those who represent us in Parliament, in the current and future general elections. It is in the nature of democratic government to reflect the people who are responsible for electing it. Consequently, the best government for any democratic country and the best contribution to the development of culture in that country is the widest possible exercise of the franchise by the maximum number of electors who will vote for the candidate and the group most likely to provide prudent, progressive, and fair government. V

An Agricultural Foundation

EVERYONE interested in the further advancement of agriculture will welcome the recent announcement that the Agricultural Institute of Canada has established, for the first time in this country, a pure agricultural research foundation. The "A.I.C. Scholarship and Research Foundation," will promote advanced agricultural studies, by the provision of scholarships and fellowships, and by grants to Canadian universities.

Specifically, the foundation is setting out to accomplish two special tasks, which governments are unlikely to include in any general assistance or scholarship programs. The first is to expand the opportunities of Canadian students in agriculture for advanced study and experience in overseas countries. This will be done by granting university post-graduate scholarships. The great majority of our agricultural scientists, up to now, have received their advanced training in the United States. We in Canada have been fortunate in having the large American colleges near at hand for such training, and we have benefitted greatly thereby. Nevertheless, the Institute believes that our graduate students, as well as Canadian agriculture itself, will stand to gain by taking fuller advantage of what certain European countries and their universities have to offer.

The second special undertaking is aimed at strengthening research work in agriculture at Canadian universities. Universities are doing what they can in agricultural research and are receiving some assistance from governments and industry for project work. However, teaching and other responsibilities—particularly heavy in agricultural faculties—receive primary attention, and leave too little time for research. By providing agricultural research, fellowships and grants, the Institute believes that the level of graduate work can be raised and types of research which universities can undertake to advantage, can be expanded.

An appeal for contributions to finance the foundation has been made to industrial and commercial organizations. The response has been sufficiently generous already, to enable the overseas scholarship program to be put into effect this year. It is to be hoped that additional funds will be forthcoming to permit the granting of a number of research fellowships in the very near future.

Meanwhile, the Institute is to be commended for its foresight and initiative in embarking on this project. Ultimately, it should contribute to the general welfare of Canadian agriculture. V

Accident and Sickness Insurance

WE pride ourselves in Canada that our country has developed on the basis of free enterprise, within the environment created by a fully democratic government. No economic system serves society perfectly; and free enterprise has its limitations. It is sometimes wasteful of resources; and in the hands of selfish men, whose primary urge is for personal satisfaction and profit, it is often anti-social. Nevertheless, it gets things done, and sooner or later manages to provide for almost every need and want of human beings where these are widespread enough to provide a market. Its occasional glaring offences against society can be, and are, curbed by law.

Co-operation in agriculture is an adaptation to the needs of agriculture, of the free enterprise common in non-agricultural business. As a producer, the farmer controls his own enterprise, but for several reasons he cannot, as a rule, either buy or sell to advantage, as an individual. Consequently, co-operative methods and principles have been devised and tested over long periods. The application of these principles has led to some very large farm organizations which represent many thousands of individual producers, and serve the farmer primarily in the purchase of his requirements and the sale of his surplus commodities.

One of the areas in which the farmer's position has always been weak, is in the field of social services. In most parts of Canada, rural electrification was developed only long after urban centers were able to enjoy this economic and social improvement. It is no disparagement of the many well qualified and dedicated medical practitioners in rural areas, to say that, on the whole, these areas have been more or less deprived of medical services readily available to their urban friends. Group insurance, which is available to a high percentage of workers in urban centers, is almost non-existent among farmers. Life insurance, and sickness and accident insurance are also at a low level in agriculture: and for years farm organizations have been struggling with the problem of workmen's compensation, in an endeavor to secure some adjustment of the present regulations which would enable the farmer to employ men who, at present, will have nothing to do with farm work.

It is for these reasons that a proposal put forward by one of the large life insurance companies, and very recently accepted by the United Grain Growers Limited, is of more than ordinary interest. The same proposal is being offered, we understand, to the three wheat pool organizations. It involves a special low-cost accident and sickness plan, in which any farmer customer of any of these organizations may participate, if his organization approves of the plan and the financial obligations involved; and if he personally has delivered grain to his organization during the twelve-month period ending May 15, 1957. The plan, as accepted by the United Grain Growers Ltd., will cost a farmer customer \$2.50 per year, or about 12 per cent of the average cost if he were to purchase such insurance on an individual basis. The plan involves no age limit, no medical examination, and no limit as to where and when accident and sickness may occur, anywhere in the world. The maximum payment to the policyholder in case of accident is \$1,500; and the maximum payment for hospital and medical expenses as result of an injury is \$750, after the policyholder has paid the first \$50 of expense.

Aside from the low cost of this group accident and sickness plan, what interests us is the fact that it clearly illustrates the way in which the farmer can meet large, free enterprise business organizations through his co-operative organizations, to the mutual advantage of both. It is extremely unlikely that any government scheme offering protection against accident and sickness could operate on as low a cost to the insured, and it is certain that the farmer could not obtain this advantage other than through a large-scale, commercial co-operative, which is, as already stated, free enterprise operating outside the farmer's line fence and adapted to his special needs. V

Potato Growers Utilize High School

HIGH school students don't just eat the spuds grown by farmers in the early potato area of Ridgetown, Ontario. They don't pick them either.

But along with their teachers, they staff the farmers' co-operative which packs and sells the crop.

One day last summer, they set a record. Thirty growers picked at a feverish pace for their Kent and Elgin Potato Growers' Co-op. The teacher-manager of the Co-op and his staff, including 60 students, packed from morning to late at night. When done they had put through 30,000 ten-pound bags. They called it a record for any single potato shed in Canada's history.

Dollar-wise, it probably was, too. For the potato-hungry market had pushed prices to 63.05 cents a bag that day, whereas the previous year, they went at 27 cents.

Growers for the early market have turned almost completely to the Co-op to do their selling job. In fact, about 90 per cent of the growers within a 20-mile radius are said to be Co-op shippers: yet it was started in 1945, by a group of farmers who didn't have any money to start with.

They managed to borrow enough to build a shed; found 100 farmers who wanted to support it; and have been boosting their receipts every year. Now they plan to build a cold storage plant and get into late potatoes as well.

Most of these growers formerly sold to independent dealers. Now, the Co-op has an aggressive policy aimed at increasing its volume still further. One teacher visits growers early in the season, lining up the crop, encouraging them to use the Co-op, and occasionally checking up on members, if they get careless in growing methods. For instance, if outbreaks of wireworm are noticed, he sees that the aldrin treatment is applied, to be sure that only top-grade potatoes come to the plant.

Fortunately for the high school arrangement, the early potato crop is a short-season one, running in 1956 from July 11 to August 4.

At harvest time, growers with anywhere from one or two, to 30 or 35 acres are notified on what day their potatoes can be taken. The spuds are delivered in 75-pound bags, deductions of 35 cents a bag made for handling, and the potatoes are graded and bagged in 10-, or 75-pound bags as required. A pool price is established for the entire day's run, and that is the price the grower gets.

In 1955, just before Christmas, cheques for 11 cents a bag were returned to all growers, as patronage dividends.

The unit buys seed for the growers, too, and if required, buys dusts and sprays and fertilizers as well.

The reason for the rapid growth of the Co-op, says Andy Everett of Ridgetown, one of the ten directors, is simply that growers can get better returns by working together. V



BAKE IT WITH MAGIC AND SERVE IT WITH PRIDE!

Orange-Banana Cake

ORANGE-BANANA CAKE

2 1/3 cups sifted pastry flour or	2 eggs, well beaten
2 cups sifted all-purpose flour	2 tsps. grated orange rind
3 tsps. Magic Baking Powder	1/2 cup milk
1/2 tsp. salt	1/2 tsp. vanilla
1 1/2 tbsps. butter or margarine	1/4 tsp. almond extract
1 cup fine granulated sugar	1/4 cup strained orange juice

Grease two 7-inch square or 8-inch round layer-cake pans and line bottoms with greased paper. Preheat oven to 375° (moderately hot). Sift flour, Magic Baking Powder and salt together three times. Cream butter or margarine; gradually blend in sugar; add well-beaten eggs part at a time, beating well after each addition; mix in orange rind. Measure milk and add vanilla and almond extract. Add flour mixture to creamed mixture about a quarter at a time, alternating with two additions of milk and one addition of orange juice and combining lightly after each addition. Turn into prepared pans. Bake in preheated oven 25 to 30 minutes. Fill cold cake with orange cake filling; when filling is set, cover cake with the following Orange Butter Icing. Decorate with banana slices and orange segments.

ORANGE BUTTER ICING: Combine 1 1/2 tsps. grated orange rind, 1 tbsp. orange juice and 1/4 tsp. lemon juice. Cream 4 tbsps. butter or margarine; beat in 1 egg yolk and a few grains salt. Work in 2 cups sifted icing sugar alternately with fruit rind and juices, using just enough liquid to make an icing of spreading consistency; beat in 1/4 tsp. vanilla.

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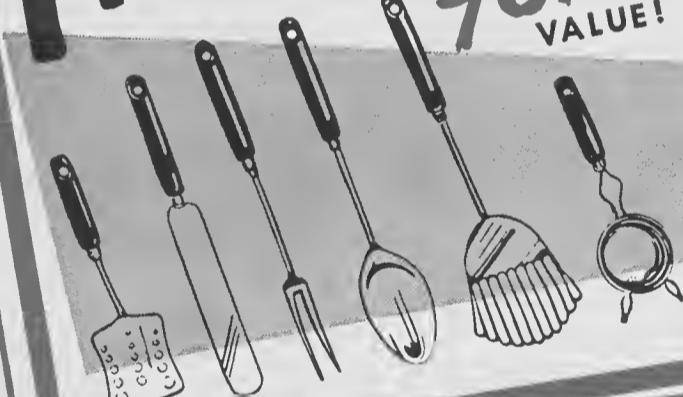
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